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20304A ASSAULT BREAKER, MISSILE NUMBER TFT-7, ROUND NUMBER V4A3---ETC(U)
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METEOROLOGICAL DATA REPORT
20304A ASSAULT BREAKER
Missile Number TFT-7
Round Number V4A3
15 April 1982

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 20304A Assault Breaker, Missile Number TFT-7, Round Number V4A3 presented in tabular form.		

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INTRODUCTION

20304A Assault Breaker, Missile Number TFT-7, Round Number V4A3, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0908 MST, 15 APR 1982. The scheduled launch time was 0900 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 and Jallen Met Sites.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Pilot-Balloon observation at:

SITE AND ALTITUDE

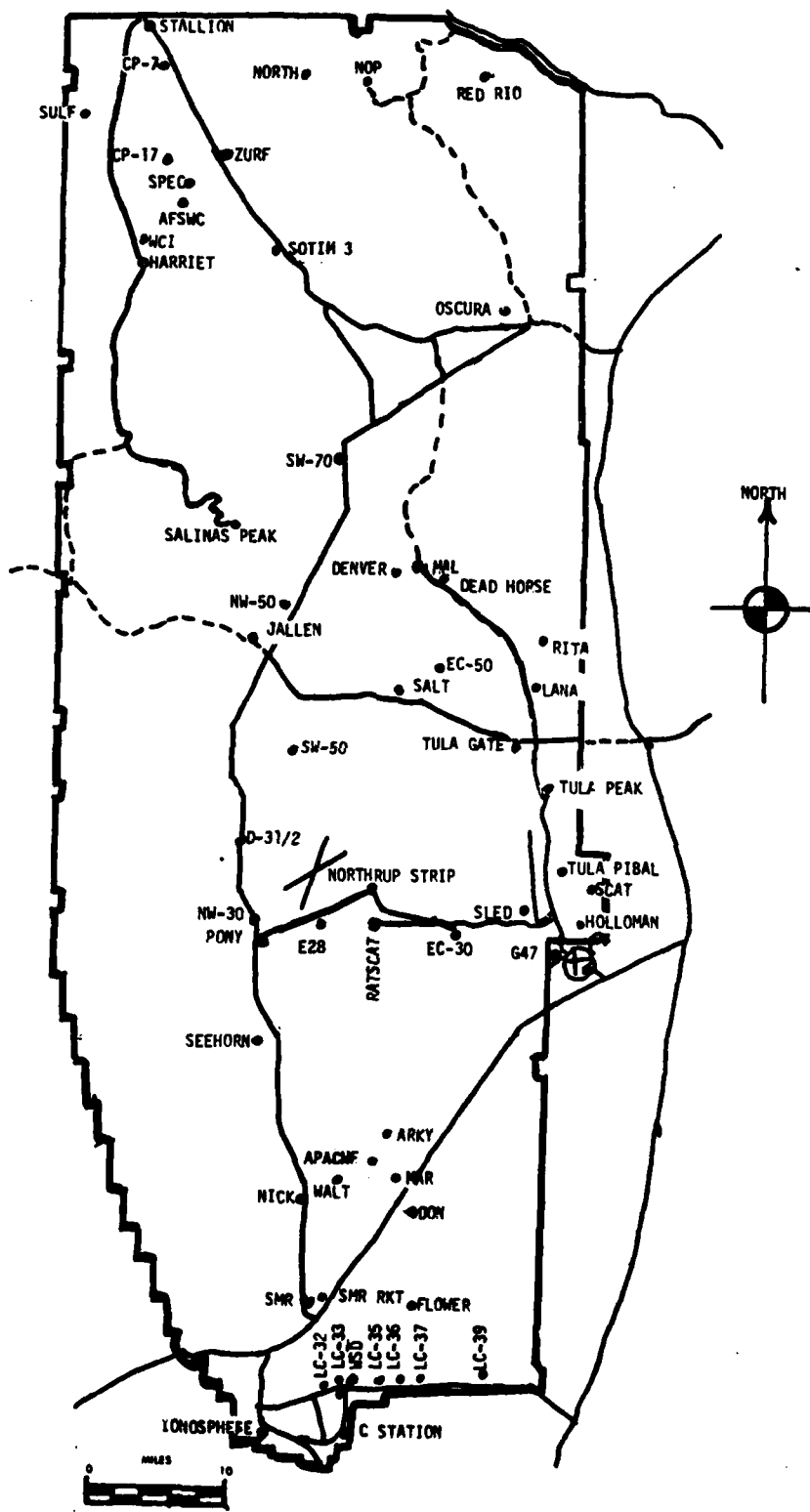
LC-33 2760 Meters
Jallen 3000 Meters

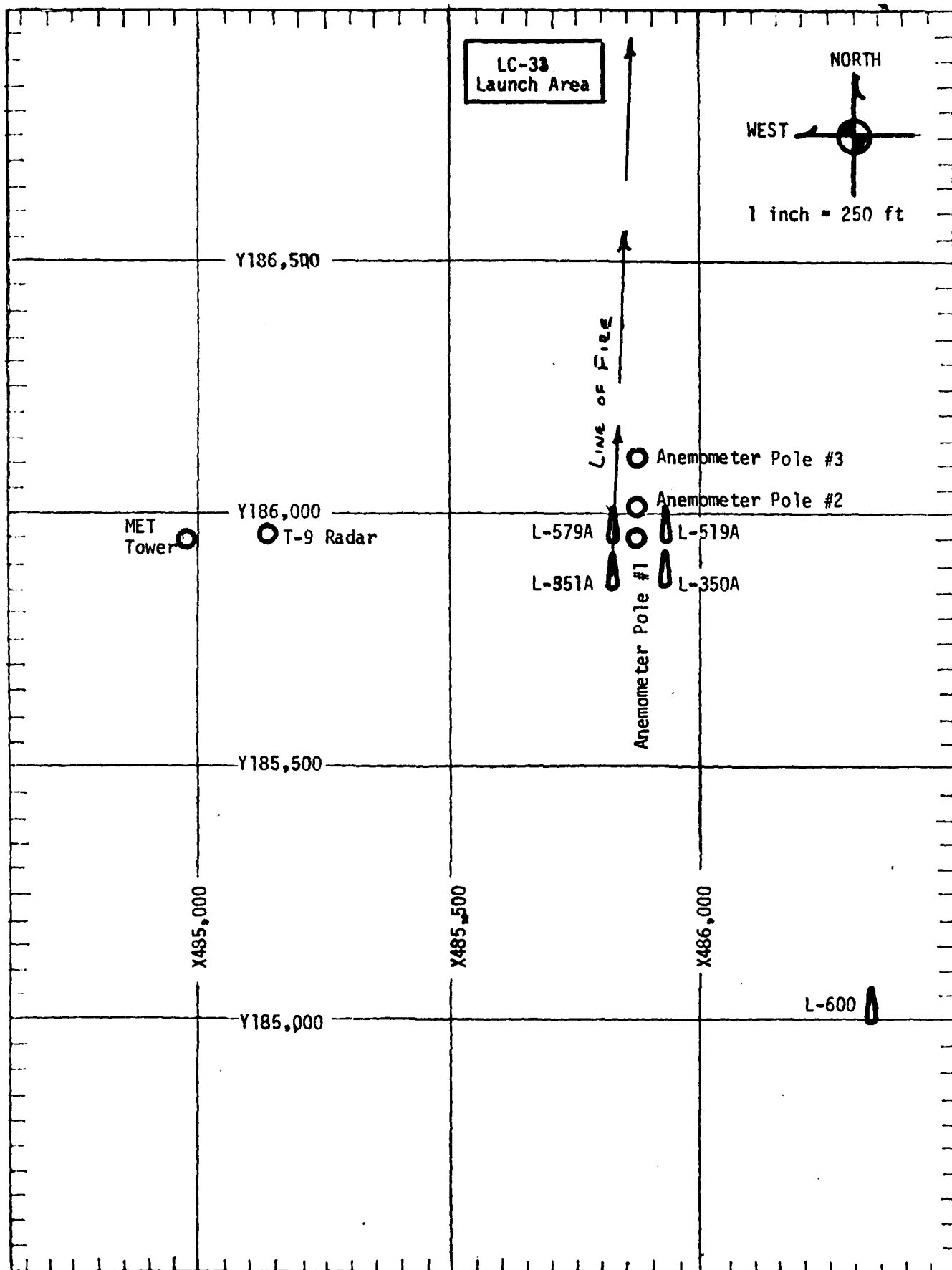
(2) Air structure data (rawinsond) were collected at the following Met Sites.

SITE AND TIME

Holloman 0630 MST
Jallen 0745 MST
LC-37 0800 MST
WSD 0908 MST
Jallen 0908 MST

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1		STATION LC-33 E & A	
DATE 15	APR 82	X= 484,982.64	Y= 185,957.73 H= 3995.00
TIME 0908	MSI		

TIME MSI	PRESSURE mb	TEMPERATURE of °C	DEW POINT of °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND		VISIBIL- ITY
						DIRECTION degs	SPEED kts	
0908	873.0	21.9	-5.2	16	1027	280	09	50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	HGT	AMT	TYPE	HGT	
	1	C1	25,000				H ALQDS

PSYCHROMETRIC COMPUTATION

TIME:	0908
DRY BULB TEMP.	21.9
WET BULB TEMP.	9.0
WET BULB DEPR.	12.9
DEW POINT	-5.2
RELATIVE HUMID.	16

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	260	11	T-30	262	09	T-30	281	17
T-20	254	10	T-20	285	07	T-20	308	17
T-10	257	08	T-10	282	10	T-10	296	14
T 0.0	261	07	T 0.0	286	10	T 0.0	280	12
T+10	264	09	T+10	282	08	T+10	292	13

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	265	11	T-30	288	15
T-20	305	10	T-20	282	12
T-10	292	10	T-10	287	15
T 0.0	303	10	T 0.0	288	19
T+10	285	15	T+10	294	18

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	282	14	T-30	287	15
T-20	277	12	T-20	280	16
T-10	278	17	T-10	281	15
T 0.0	279	18	T 0.0	276	18
T+10	275	18	T+10	280	18

PROJECT SURFACE OBSERVATION

TABLE 4										STATION JAL-R			
DATE 15		APR		82		X= 451,560.00		Y= 465,177.00		H= 4051.00			
DAY		MONTH		YEAR									
TIME M S I		PRESSURE mbs	TEMPERATURE OF	TEMPERATURE OC	DEW POINT OF	DEW POINT OC	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION degs Tn	WIND		VISIBIL- ITY	
										SPEED kts	CHARACTER kts		
0836		871.5		18.2		-4.3	21	1038	180	01		50	
0907		871.6		18.9		-11.0	12	1036	190	02		50	
0937		871.0		21.3		-13.3	09	1028	160	06		50	

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	HGT	AMT	TYPE	HGT	
NONE							CLR
NONE							CLR
NONE							CLR

PSYCHROMETRIC COMPUTATION

TIME:	0830	0907	0937
DRY BULB TEMP.	18.2	18.9	21.3
WET BULB TEMP.	7.6	6.5	7.2
WET BULB DEPR.	10.6	12.4	14.1
DEW POINT	-4.3	-11.0	-13.3
RELATIVE HUMID.	21%	12%	9%

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 15 APR 82

TIME 0858 MST

COORDINATES (WSTM)

$\chi = 486,872.00$

$$Y = 184,146.75$$
$$H = 3981,15$$

HEIGHTS ARE METERS AGL X OR FEET AGL _____.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
sfc	280	14
60	281	22
120	281	25
180	281	25
240	281	25
300	285	24
360	287	25
420	288	25
480	283	22
540	278	20
600	269	18
660	263	16
720	266	12
780	252	09
840	233	08
900	22	09
960	211	09
1020	222	09
1080	207	07
1140	228	09
1200	226	09
1260	240	10
1320	246	12
1380	243	11
1440	224	11
1550	227	12
1560	242	13
1620	254	19
1680	261	19
1740	261	19
1800	261	19

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM LC-33 DATE 15 APR 82 TIME 0908 MST

COORDINATES (WSTM) X= 486,872.00 Y= 184,146.75 H= 3981.15

HEIGHTS ARE METERS AGL X OR FEET AGL _____.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
sfc	280	09
60	283	17
120	291	20
180	280	21
240	292	20
300	285	22
360	277	21
420	283	22
480	275	25
540	271	23
600	275	23
660	272	21
720	268	19
780	265	15
840	252	14
900	253	13
960	237	12
1020	246	12
1080	246	11
1140	236	10
1200	239	09
1260	240	09
1320	231	08
1380	236	13
1440	251	17
1500	249	21
1560	262	23
1620	258	22
1680	261	25
1740	258	25
1800	267	25

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 7

RELEASED FROM JALLEN

DATE 15 APR 82

TIME 0830 MST

COORDINATES (WSTM) X= 451,560.00 Y= 465,177.00 H= 4051.00

HEIGHTS ARE METERS AGL X OR FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
sfc	180	01
60	176	04
120	175	06
180	174	09
240	182	08
300	191	07
360	204	07
420	219	07
480	233	07
540	242	08
600	247	08
660	252	09
720	257	09
780	263	09
840	269	09
900	274	08
960	279	08
1020	279	08
1080	276	08
1140	272	07
1200	268	08
1260	265	09
1320	265	10
1440	266	11
1500	261	12
1560	258	12
1620	256	13

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 8

RELEASED FROM JALLEN

DATE 15 APR 82

TIME 0908 MST

COORDINATES (WSTM) X= 451,560.00 Y= 465,177.00 H= 4051.00

HEIGHTS ARE METERS AGL X OR FEET AGL _____.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
sfc	190	02
60	181	04
120	178	06
180	177	08
240	186	07
300	196	07
360	208	07
420	220	06
480	232	07
540	238	07
600	241	07
660	244	06
720	246	06
780	248	05
840	250	05
900	252	05
960	254	05
1020	263	05
1080	273	06
1140	280	06
1200	281	08
1260	281	09
1320	270	09
1380	258	10
1440	251	11
1500	249	12
1560	247	13
1620	252	13

[illegible][illegible]

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0630 HRS MST
ASCENSION NO. 105

SIGNIFICANT LEVEL DATA
1050010105
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 9

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES	REL. HUM. PERCENT
MILLIBARS	MSL FEET	CENTIGRADE		
867.7	4126.6	6.2	-8.8	33.0
864.9	4214.7	13.5	-2.4	33.0
855.5	4518.9	17.5	1.9	35.0
850.0	4699.7	17.3	1.7	35.0
802.2	6311.9	13.9	-1.3	35.0
700.0	10026.9	5.2	-6.6	36.0
618.4	13312.1	-1.5	-16.0	32.0
558.8	15935.5	-7.6	-19.1	39.0
540.6	16780.4	-9.3	-15.0	63.0
525.8	17484.6	-10.8	-18.0	55.0
515.2	17998.0	-12.5	-19.2	57.0
500.0	18748.6	-13.7	-25.2	37.0
478.1	19865.5	-15.1	-27.7	33.0
435.5	22155.9	-21.9	-32.6	37.0
429.5	22492.5	-20.9	-32.3	35.0
400.0	24210.3	-24.5	-36.4	32.0
374.5	25778.0	-28.0	-39.5	32.0
314.1	29856.2	-37.3	-47.8	32.0
300.0	30897.0	-39.0	-49.4	32.0
289.1	31730.4	-40.3		
250.0	34934.3	-48.8		
220.5	37620.0	-54.1		
200.0	39676.6	-55.4		
180.5	41823.2	-57.3		
162.3	44029.8	-58.9		
150.0	45651.0	-61.3		
133.1	48078.2	-64.5		
116.7	50726.6	-64.8		
106.1	52664.7	-60.2		
100.0	53880.1	-61.3		
84.1	57396.6	-64.8		
80.2	58359.5	-62.0		
70.9	60855.7	-65.4		
70.0	61112.9	-64.5		
63.1	63207.1	-64.5		
58.6	64716.9	-59.9		
50.0	67998.5	-59.0		
44.9	70245.5	-55.7		
36.9	74369.7	-56.4		
30.0	78743.5	-53.6		

GEODETIC COORDINATES
32.08865 LAT DEG
106.09965 LON DEG

SIGNIFICANT LEVEL DATA
1050010105
HOLLOWAY

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0630 HRS MST
ASCENSION NO. 105

TABLE 9 CONT'D

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
23.1 84354.4	-49.6		
20.0 87477.8	-49.5		
14.8 94071.6	-45.2		
12.9 97095.1	-47.5		
10.0 102735.6	-42.4		
8.2 107230.9	-37.4		
7.0 110843.3	-38.9		
5.0 118527.7	-37.5		
4.2 122562.7	-32.9		

UPPER AIR DATA
105010105
HOLLOMAN

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0630 HRS MST
ASCENSION NO. 105

GEODETIC COORDINATES
32.68865 LAT DEG
106.09965 LON DEG

TABLE 10

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INJEX OF REFRACTION
4126.6	867.7	6.2	-8.8	33.0	1080.6	651.6	110.0	2.9	1.000256
4500.0	850.1	17.3	1.6	34.9	1023.8	664.9	115.2	2.1	1.000259
5000.0	840.9	16.7	1.2	35.0	1007.7	664.2	134.1	1.1	1.000255
5500.0	825.9	15.6	.2	35.0	993.6	663.0	209.0	.7	1.000250
6000.0	811.2	14.6	-.7	35.0	979.6	661.7	230.4	2.2	1.000245
6500.0	795.7	13.5	-1.7	35.1	965.9	660.4	216.7	6.1	1.000240
7000.0	782.2	12.3	-2.6	35.2	952.3	659.0	215.6	9.7	1.000236
7500.0	768.0	11.1	-3.6	35.3	939.0	657.6	247.0	9.9	1.000231
8000.0	754.0	9.9	-4.6	35.5	925.9	656.2	271.7	12.7	1.000227
8500.0	740.3	8.8	-5.6	35.6	912.9	654.8	287.0	17.2	1.000223
9000.0	726.9	7.6	-6.6	35.7	900.2	653.4	290.1	19.8	1.000218
9500.0	713.7	6.4	-7.6	35.9	887.6	652.0	282.3	18.7	1.000215
10000.0	700.7	5.3	-8.6	36.0	875.2	650.6	279.2	18.0	1.000211
10500.0	687.6	4.2	-9.7	35.4	862.2	649.4	281.3	17.4	1.000207
11000.0	674.8	3.2	-10.8	34.8	849.3	648.1	281.7	18.7	1.000202
11500.0	662.2	2.2	-11.9	34.2	836.6	646.9	281.1	21.0	1.000199
12000.0	649.8	1.2	-13.1	33.6	824.1	645.7	279.1	23.3	1.000195
12500.0	637.6	.2	-14.2	33.0	811.8	644.4	277.1	25.6	1.000191
13000.0	625.7	-.9	-15.3	32.4	799.7	643.2	274.8	27.0	1.000188
13500.0	613.9	-1.9	-16.2	32.5	787.7	641.9	272.8	28.2	1.000184
14000.0	602.2	-3.1	-16.8	33.8	776.0	640.5	272.3	28.8	1.000181
14500.0	590.7	-4.3	-17.3	35.2	764.5	639.1	271.5	29.2	1.000179
15000.0	579.4	-5.4	-17.9	36.5	753.1	637.7	269.3	29.2	1.000176
15500.0	568.3	-6.6	-18.6	37.8	742.0	636.4	268.3	29.7	1.000173
16000.0	557.4	-7.7	-18.7	40.8	730.9	635.0	262.7	30.8	1.000170
16500.0	546.6	-8.7	-19.1	55.0	719.2	633.9	261.3	32.4	1.000170
17000.0	535.9	-9.8	-19.9	60.5	708.0	632.6	260.7	34.1	1.000167
17500.0	525.5	-10.9	-18.1	55.1	697.2	631.3	261.6	34.3	1.000163
18000.0	515.2	-12.5	-19.2	56.9	687.9	629.3	262.8	34.3	1.000161
18500.0	505.0	-13.3	-23.0	43.6	676.5	628.2	262.8	34.1	1.000156
19000.0	495.0	-14.0	-25.8	36.1	665.1	627.3	262.6	33.8	1.000152
19500.0	485.2	-14.6	-26.9	34.3	653.5	626.5	262.4	34.9	1.000149
20000.0	475.5	-15.5	-28.0	33.2	642.6	625.5	262.3	36.1	1.000147
20500.0	465.9	-17.0	-29.0	34.1	633.3	623.7	263.2	37.4	1.000144
21000.0	456.5	-18.5	-30.1	35.0	624.2	621.8	264.2	38.6	1.000142
21500.0	447.3	-20.0	-31.2	35.9	615.2	620.0	267.4	38.4	1.000140
22000.0	438.3	-21.4	-32.3	36.7	606.4	618.2	271.2	38.0	1.000137
22500.0	429.4	-20.9	-32.3	35.0	592.8	618.8	278.5	35.5	1.000134
23000.0	420.6	-22.0	-33.5	34.1	583.1	617.5	285.0	33.8	1.000132
23500.0	411.9	-23.0	-34.7	33.2	573.5	616.2	290.6	32.5	1.000130

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TABLE 10 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	403.5	-24.1	-35.9	32.4	564.2	614.9	291.0	33.0	1.000127
24500.0	395.2	-25.1	-37.0	32.0	554.9	613.6	289.2	34.8	1.000125
25000.0	386.9	-26.3	-38.0	32.0	545.9	612.2	283.3	37.2	1.000123
25500.0	378.9	-27.4	-39.0	32.0	537.0	610.8	278.2	40.1	1.000121
26000.0	370.9	-28.5	-40.0	32.0	528.1	609.4	276.7	43.6	1.000119
26500.0	363.0	-29.6	-41.0	32.0	519.3	608.0	276.9	47.2	1.000117
27000.0	355.3	-30.8	-42.0	32.0	510.6	606.5	278.3	50.9	1.000115
27500.0	347.7	-31.9	-43.0	32.0	502.1	605.1	278.0	54.4	1.000113
28000.0	340.3	-33.1	-44.0	32.0	493.7	603.7	278.9	57.8	1.000111
28500.0	333.0	-34.2	-45.1	32.0	485.5	602.2	279.4	61.2	1.000109
29000.0	325.9	-35.3	-46.1	32.0	477.4	600.8	279.8	64.6	1.000107
29500.0	319.0	-36.5	-47.1	32.0	469.5	599.4	279.0	67.9	1.000105
30000.0	312.1	-37.5	-48.0	32.0	461.4	598.0	277.9	71.1	1.000103
30500.0	305.3	-38.4	-48.8	32.0	452.9	597.0	275.3	73.9	1.000101
31000.0	298.6	-39.2	-50.6	28.0**	444.6	595.9	273.4	75.6	1.000099
31500.0	292.1	-39.9	-60.6	8.8**	436.3	594.9	272.4	75.6	1.000097
32000.0	285.6	-41.0			428.6	593.6	272.1	75.9	1.000095
32500.0	279.2	-42.3			421.4	591.9	272.7	76.7	1.000094
33000.0	272.9	-43.7			414.3	590.2	272.9	77.7	1.000092
33500.0	266.8	-45.0			407.4	588.5	272.8	78.8	1.000091
34000.0	260.8	-46.3			400.6	586.7	272.6	79.0	1.000089
34500.0	255.0	-47.6			393.9	585.0	272.5	78.4	1.000088
35000.0	249.2	-48.9			387.2	583.4	272.3	77.9	1.000086
35500.0	243.5	-49.9			380.0	582.1	272.2	77.6	1.000085
36000.0	237.8	-50.9			372.8	580.8	272.1	77.8	1.000083
36500.0	232.4	-51.9			365.8	579.5	272.0	78.7	1.000081
37000.0	227.0	-52.9			359.0	578.2	271.9	79.4	1.000080
37500.0	221.7	-53.9			352.3	576.9	271.8	80.0	1.000078
38000.0	216.6	-54.3			344.8	576.3	271.8	81.2	1.000077
38500.0	211.5	-54.7			337.2	575.9	271.8	82.8	1.000075
39000.0	206.5	-55.0			329.8	575.4	271.9	83.7	1.000073
39500.0	201.7	-55.3			322.5	575.0	272.0	84.3	1.000072
40000.0	196.9	-55.7			315.5	574.5	272.1	83.8	1.000070
40500.0	192.3	-56.1			308.7	573.9	272.2	82.6	1.000069
41000.0	187.7	-56.6			302.0	573.3	272.2	80.8	1.000067
41500.0	183.3	-57.0			295.5	572.7	272.2	78.5	1.000066
42000.0	179.0	-57.4			289.0	572.2	272.1	76.3	1.000064
42500.0	174.7	-57.8			282.6	571.7	271.9	74.2	1.000063
43000.0	170.6	-58.2			276.4	571.2	271.5	73.5	1.000062
43500.0	166.5	-58.5			270.2	570.7	270.9	73.5	1.000060

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

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TABLE 10 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
44000.0	162.5	-58.9		264.2	570.3	270.2	73.0	1.000059
44500.0	158.6	-59.6		258.8	569.3	269.4	72.2	1.000058
45000.0	154.8	-60.3		253.4	568.3	268.7	70.6	1.000056
45500.0	151.1	-61.1		248.2	567.3	267.9	68.9	1.000055
46000.0	147.4	-61.8		243.0	566.4	267.8	71.0	1.000054
46500.0	143.9	-62.4		237.8	565.5	267.8	74.2	1.000053
47000.0	140.4	-63.1		232.8	564.7	268.2	76.9	1.000052
47500.0	136.9	-63.7		227.8	563.8	268.6	79.5	1.000051
48000.0	133.6	-64.4		223.0	562.9	268.5	77.7	1.000050
48500.0	130.3	-64.5		217.7	562.7	268.0	73.6	1.000048
49000.0	127.1	-64.6		212.4	562.6	267.4	69.0	1.000047
49500.0	124.0	-64.7		207.2	562.5	266.5	63.6	1.000046
50000.0	121.0	-64.7		202.2	562.4	265.8	58.4	1.000045
50500.0	118.0	-64.8		197.3	562.4	266.0	53.8	1.000044
51000.0	115.1	-64.2		191.9	563.2	266.3	49.2	1.000043
51500.0	112.3	-63.0		186.2	564.8	267.4	45.7	1.000041
52000.0	109.6	-61.8		180.7	566.4	268.7	42.2	1.000040
52500.0	107.0	-60.6		175.3	568.0	269.6	36.9	1.000039
53000.0	104.4	-60.5		171.0	568.1	270.7	31.5	1.000038
53500.0	101.9	-61.0		167.2	567.5	270.7	24.2	1.000037
54000.0	99.4	-61.4		163.6	566.9	269.9	16.4	1.000036
54500.0	97.0	-61.9		160.0	566.2	267.5	10.8	1.000036
55000.0	94.6	-62.4		156.4	565.5	262.4	7.6	1.000035
55500.0	92.3	-62.9		153.0	564.9	251.0	4.6	1.000034
56000.0	90.1	-63.4		149.6	564.2	214.1	2.1	1.000033
56500.0	87.9	-63.9		146.3	563.5	135.4	2.8	1.000033
57000.0	85.8	-64.4		143.1	562.9	129.4	3.3	1.000032
57500.0	83.7	-64.5		139.7	562.7	127.2	3.6	1.000031
58000.0	81.6	-63.0		135.4	564.7	226.8	2.9	1.000030
58500.0	79.6	-62.2		131.5	565.8	259.9	10.1	1.000029
59000.0	77.7	-62.9		128.7	564.9	264.4	16.8	1.000029
59500.0	75.8	-63.6		126.0	564.0	265.5	21.8	1.000028
60000.0	74.0	-64.2		123.3	563.1	266.1	25.7	1.000027
60500.0	72.2	-64.9		120.7	562.2	265.3	23.6	1.000027
61000.0	70.4	-64.9		117.8	562.2	264.5	21.5	1.000026
61500.0	68.7	-64.5		114.7	562.7	264.1	17.9	1.000026
62000.0	67.0	-64.5		111.8	562.7	263.8	14.0	1.000025
62500.0	65.4	-64.5		109.1	562.7	263.6	11.4	1.000024
63000.0	63.8	-64.5		106.4	562.7	263.9	10.7	1.000024
63500.0	62.2	-63.6		103.4	563.9	264.2	10.1	1.000023

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GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.7	-62.1		100.2	566.0	262.9	10.4	1.000022
64500.0	59.2	-60.6		97.1	568.0	261.7	10.7	1.000022
65000.0	57.8	-59.8		94.4	569.0	261.5	10.4	1.000021
65500.0	56.4	-59.7		92.1	569.2	262.2	9.7	1.000021
66000.0	55.1	-59.5		89.8	569.4	262.8	9.1	1.000020
66500.0	53.8	-59.4		87.6	569.6	263.1	8.9	1.000020
67000.0	52.5	-59.3		85.5	569.7	263.4	8.7	1.000019
67500.0	51.2	-59.1		83.4	569.9	263.6	8.8	1.000019
68000.0	50.0	-59.0		81.3	570.1	263.9	8.9	1.000018
68500.0	48.8	-58.3		79.1	571.1	267.5	8.6	1.000018
69000.0	47.7	-57.5		77.0	572.1	274.3	8.0	1.000017
69500.0	46.5	-56.8		74.9	573.0	283.2	6.8	1.000017
70000.0	45.4	-56.1		72.9	574.0	312.2	3.6	1.000016
70500.0	44.4	-55.7		71.1	574.4	21.0	3.5	1.000016
71000.0	43.3	-55.8		69.4	574.3	61.1	6.3	1.000015
71500.0	42.3	-55.9		67.8	574.2	74.9	10.2	1.000015
72000.0	41.3	-56.0		66.3	574.1	82.3	13.8	1.000015
72500.0	40.3	-56.1		64.7	574.0	87.8	17.1	1.000014
73000.0	39.4	-56.2		63.2	573.9	91.3	19.2	1.000014
73500.0	38.5	-56.3		61.8	573.8	94.1	15.2	1.000014
74000.0	37.6	-56.3		60.3	573.6	98.9	11.3	1.000013
74500.0	36.7	-56.3		58.9	573.7	116.7	4.2	1.000013
75000.0	35.8	-56.0		57.5	574.1	247.1	4.8	1.000013
75500.0	35.0	-55.7		56.0	574.5	255.0	7.2	1.000012
76000.0	34.2	-55.4		54.6	574.9	235.1	3.1	1.000012
76500.0	33.4	-55.0		53.3	575.4	135.8	2.4	1.000012
77000.0	32.6	-54.7		52.0	575.8	238.4	2.0	1.000012
77500.0	31.8	-54.4		50.7	576.2	265.2	5.1	1.000011
78000.0	31.1	-54.1		49.4	576.6	268.5	3.9	1.000011
78500.0	30.3	-53.8		48.2	577.0	93.3	3.9	1.000011
79000.0	29.6	-53.4		47.0	577.5	91.7	11.8	1.000010
79500.0	29.0	-53.1		45.8	578.0	92.0	12.8	1.000010
80000.0	28.3	-52.7		44.7	578.4	92.6	12.0	1.000010
80500.0	27.6	-52.3		43.6	578.9	93.3	9.6	1.000010
81000.0	27.0	-52.0		42.5	579.4	269.1	4.0	1.000009
81500.0	26.4	-51.6		41.5	579.8	271.4	17.5	1.000009
82000.0	25.8	-51.3		40.5	580.3	271.6	20.3	1.000009
82500.0	25.2	-50.9		39.5	580.8	271.6	11.5	1.000009
83000.0	24.6	-50.6		38.5	581.2	271.6	2.7	1.000009
83500.0	24.0	-50.2		37.6	581.7	271.6	6.5	1.000008

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TABLE 10 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.5	-49.9		36.6	582.2	271.0	12.9	1.000008
84500.0	22.9	-49.6		35.8	582.5	271.0	18.3	1.000008
85000.0	22.4	-49.6		34.9	582.5	271.0	18.9	1.000008
85500.0	21.9	-49.6		34.1	582.5	271.0	19.6	1.000008
86000.0	21.4	-49.5		33.4	582.6	271.0	16.3	1.000007
86500.0	20.9	-49.5		32.6	582.6	271.0	7.0	1.000007
87000.0	20.4	-49.5		31.8	582.6	91.0	2.3	1.000007
87500.0	20.0	-49.5		31.1	582.6	87.6	5.3	1.000007
88000.0	19.5	-49.2		30.4	583.1	40.3	1.5	1.000007
88500.0	19.1	-48.8		29.6	583.5	301.2	3.9	1.000007
89000.0	18.7	-48.5		28.9	583.9	307.9	3.9	1.000006
89500.0	18.2	-48.2		28.2	584.3	35.3	2.8	1.000006
90000.0	17.8	-47.9		27.6	584.8	71.4	6.7	1.000006
90500.0	17.4	-47.5		26.9	585.2	79.1	8.7	1.000006
91000.0	17.0	-47.2		26.3	585.6	84.4	8.6	1.000006
91500.0	16.6	-46.9		25.6	586.0	89.6	8.7	1.000006
92000.0	16.3	-46.6		25.0	586.4	91.7	10.1	1.000006
92500.0	15.9	-46.2		24.4	586.9	91.7	12.3	1.000005
93000.0	15.5	-45.9		23.8	587.3	91.7	14.6	1.000005
93500.0	15.2	-45.6		23.3	587.7	95.7	13.9	1.000005
94000.0	14.8	-45.2		22.7	588.1	104.0	11.8	1.000005
94500.0	14.5	-45.5		22.2	587.8	115.6	10.0	1.000005
95000.0	14.2	-45.9		21.8	587.3	153.1	5.8	1.000005
95500.0	13.9	-46.3		21.3	586.8	225.0	8.2	1.000005
96000.0	13.6	-46.7		20.9	586.3	246.4	15.6	1.000005
96500.0	13.3	-47.0		20.4	585.8	249.7	18.6	1.000005
97000.0	13.0	-47.4		20.0	585.3	250.3	19.2	1.000004
97500.0	12.7	-47.1		19.5	585.7	250.8	19.8	1.000004
98000.0	12.4	-46.7		19.0	586.3	253.6	22.8	1.000004
98500.0	12.1	-46.2		18.6	586.9	256.3	27.0	1.000004
99000.0	11.8	-45.8		18.1	587.4	258.3	31.1	1.000004
99500.0	11.6	-45.3		17.7	588.0	250.8	30.4	1.000004
100000.0	11.3	-44.9		17.3	588.6	253.0	27.7	1.000004
100500.0	11.1	-44.4		16.8	589.2	249.6	25.1	1.000004
101000.0	10.8	-44.0		16.4	589.8	247.6	25.3	1.000004
101500.0	10.6	-43.5		16.0	590.4	246.8	26.5	1.000004
102000.0	10.3	-43.1		15.7	590.9	246.0	27.7	1.000003
102500.0	10.1	-42.6		15.3	591.5	246.8	26.5	1.000003
103000.0	9.9	-42.1		14.9	592.2	248.5	24.4	1.000003
103500.0	9.7	-41.5		14.5	592.9	250.6	22.3	1.000003

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TABLE 10CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (TN))	SPEED KNOTS	INDEX OF REFRACTION
104000.0	9.5	-41.0		14.2	593.6	251.0	20.3	1.000003
104500.0	9.3	-40.4		13.8	594.3	250.0	18.3	1.000003
105000.0	9.0	-39.9		13.5	595.0	250.1	16.4	1.000003
105500.0	8.9	-39.3		13.2	595.7	249.4	14.4	1.000003
106000.0	8.7	-38.8		12.9	596.4	248.8	12.2	1.000003
106500.0	8.5	-38.2		12.6	597.1	249.1	9.4	1.000003
107000.0	8.3	-37.7		12.3	597.8	249.0	6.6	1.000003
107500.0	8.1	-37.5		12.0	598.0	250.4	3.7	1.000003
108000.0	7.9	-37.7		11.7	597.8	260.3	.9	1.000003
108500.0	7.8	-37.9		11.5	597.5	270.4	2.0	1.000003
109000.0	7.6	-38.1		11.2	597.2	270.4	3.8	1.000003
109500.0	7.4	-38.3		11.0	597.0	270.4	5.6	1.000002
110000.0	7.3	-38.5		10.8	596.7	270.4	7.4	1.000002
110500.0	7.1	-38.8		10.6	596.4	268.1	11.4	1.000002
111000.0	7.0	-38.9		10.3	596.3	265.0	18.6	1.000002
111500.0	6.8	-38.8		10.1	596.4	264.5	25.7	1.000002
112000.0	6.7	-38.7		9.9	596.5	263.4	32.9	1.000002
112500.0	6.5	-38.6		9.7	596.6	263.5	40.1	1.000002
113000.0	6.4	-38.5		9.5	596.8	262.2	42.1	1.000002
113500.0	6.2	-38.4		9.2	596.9	261.0	44.0	1.000002
114000.0	6.1	-38.3		9.0	597.0	259.9	45.9	1.000002
114500.0	6.0	-38.2		8.8	597.1	258.9	47.8	1.000002
115000.0	5.8	-38.1		8.6	597.2	258.4	48.5	1.000002
115500.0	5.7	-38.1		8.5	597.3	257.1	48.1	1.000002
116000.0	5.6	-38.0		8.3	597.5	256.3	47.7	1.000002
116500.0	5.5	-37.9		8.1	597.6	255.4	47.3	1.000002
117000.0	5.3	-37.8		7.9	597.7	254.5	46.9	1.000002
117500.0	5.2	-37.7		7.7	597.8	253.8	45.4	1.000002
118000.0	5.1	-37.6		7.6	597.9	253.2	44.0	1.000002
118500.0	5.0	-37.5		7.4	598.0	252.5	42.6	1.000002
119000.0	4.9	-37.0		7.2	598.7	251.7	41.1	1.000002
119500.0	4.8	-36.4		7.1	599.4			1.000002
120000.0	4.7	-35.8		6.9	600.2			1.000002
120500.0	4.6	-35.3		6.7	600.9			1.000001
121000.0	4.5	-34.7		6.6	601.6			1.000001
121500.0	4.4	-34.1		6.4	602.3			1.000001
122000.0	4.3	-33.5		6.3	603.0			1.000001
122500.0	4.2	-33.0		6.1	603.8			1.000001

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0630 HRS MST
ASCENSION NO. 105

MANDATORY LEVELS
1050010105
HOLLOWMAN
TABLE 11

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4697.	17.3	1.7	35.	119.9	1.7
800.0	6383.	13.7	-1.4	35.	218.0	5.2
750.0	8154.	9.6	-4.9	35.	277.5	14.0
700.0	10018.	5.2	-8.6	36.	279.3	18.0
650.0	11989.	1.2	-13.0	34.	279.1	23.3
600.0	14084.	-3.3	-16.9	34.	272.2	28.9
550.0	16321.	-8.4	-16.8	51.	261.5	31.8
500.0	18723.	-13.7	-25.2	37.	262.7	33.9
450.0	21327.	-19.5	-30.8	30.	266.5	38.5
400.0	24171.	-24.5	-36.4	32.	290.6	33.7
350.0	27317.	-31.6	-42.7	32.	278.7	53.4
300.0	30837.	-39.0	-49.4	32.	273.6	75.7
250.0	34860.	-48.8			272.3	77.9
200.0	39583.	-55.4			272.0	84.5
175.0	42362.	-57.8			271.9	74.4
150.0	45531.	-61.3			267.8	68.7
125.0	49204.	-64.6			266.9	65.5
100.0	53717.	-61.3			270.2	18.6
80.0	58221.	-62.1			257.4	8.4
70.0	60906.	-64.5			264.3	21.2
60.0	64005.	-61.4			262.4	10.5
50.0	67746.	-59.0			263.9	8.9
40.0	72390.	-56.1			89.0	18.0
30.0	78411.	-53.6			92.2	7.2
25.0	82282.	-50.8			271.6	9.6
20.0	87072.	-49.5			89.0	5.8
15.0	93312.	-45.4			99.2	12.9
10.0	102185.	-42.4			247.4	25.7
7.0	110206.	-38.9			266.4	15.6
5.0	117803.	-37.5			252.5	42.6

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

SIGNIFICANT LEVEL DATA
1050030021
JALLEN

TABLE 12

STATION ALTITUDE 4051.00 FEET NSL
15 APR. 82 0745 HRS MST
ASCENSION NO. 21

PRESSURE		GEOMETRIC	TEMPERATURE		REL. HUM.
MILLIBARS	ALTITUDE	MSL FEET	AIR	DEWPOINT	PERCENT
			DEGREES	CENTIGRADE	
871.4	4051.0		8.9	-10.0	25.0
870.4	4082.3		11.2	-8.1	25.0
865.3	4243.2		11.0	-9.3	23.0
855.3	4562.9		13.9	-8.7	20.0
850.0	4735.3		15.7	-7.2	20.0
835.4	5217.3		15.5	-6.0	19.0
700.0	10040.1		4.5	-17.7	18.0
576.5	15125.2		-6.8	-24.3	16.0
500.0	18728.5		-14.0	-34.3	16.0
453.6	21134.4		-19.5	-36.2	17.0
430.3	22418.6		-21.3	-39.8	17.0
400.0	24175.3		-25.7	-43.4	17.0
357.1	26844.5		-32.4	-48.6	18.0
339.8	27992.9		-34.1	-50.0	18.0
300.0	30825.7		-40.5		

STATION ALTITUDE 4051.00 FEET MSL
15 APR. 82
ASCENSION NO. 21

UPPER AIR DATA
1050030021
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 13

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	871.4	8.9	-10.0	25.0	1075.0	654.7	.0	.0	1.000253
4500.0	857.3	13.3	-8.8	20.6	1041.0	659.8	259.0	2.3	1.000246
5000.0	842.0	15.6	-7.6	19.5	1014.2	662.5	259.0	4.8	1.000242
5500.0	826.8	14.9	-8.6	18.9	998.6	661.6	259.0	7.4	1.000237
6000.0	811.8	13.7	-9.6	18.8	984.4	660.3	258.9	9.3	1.000233
6500.0	797.0	12.6	-10.6	18.7	970.5	658.9	258.7	10.3	1.000229
7000.0	782.5	11.4	-11.6	18.6	956.8	657.6	258.3	11.6	1.000225
7500.0	768.3	10.3	-12.6	18.5	943.2	656.3	257.9	13.4	1.000221
8000.0	754.4	9.2	-13.6	18.4	929.9	654.9	258.8	14.5	1.000217
8500.0	740.7	8.0	-14.6	18.3	916.8	653.6	261.4	14.9	1.000214
9000.0	727.2	6.9	-15.6	18.2	903.8	652.2	264.0	15.3	1.000210
9500.0	714.0	5.7	-16.6	18.1	891.1	650.9	266.9	16.1	1.000207
10000.0	701.0	4.6	-17.6	18.0	878.6	649.5	269.1	17.1	1.000203
10500.0	687.8	3.5	-18.7	17.8	865.5	648.2	269.8	18.8	1.000200
11000.0	674.8	2.4	-19.7	17.6	852.6	646.9	269.3	20.4	1.000196
11500.0	662.1	1.3	-20.8	17.4	839.9	645.6	267.5	22.0	1.000193
12000.0	649.5	.1	-21.8	17.2	827.5	644.2	266.6	23.3	1.000190
12500.0	637.3	-1.0	-22.9	17.0	815.2	642.9	266.7	24.3	1.000187
13000.0	625.2	-2.1	-23.9	16.8	803.1	641.6	267.4	24.6	1.000183
13500.0	613.4	-3.2	-24.9	16.6	791.2	640.3	268.5	24.5	1.000180
14000.0	601.8	-4.3	-26.0	16.4	779.4	638.9	266.8	25.5	1.000177
14500.0	590.4	-5.4	-27.0	16.2	767.9	637.6	264.6	26.9	1.000175
15000.0	579.3	-6.5	-28.1	16.0	756.5	636.3	263.5	27.0	1.000172
15500.0	568.0	-7.5	-29.0	16.0	744.8	635.0	262.6	27.2	1.000169
16000.0	556.9	-8.5	-29.8	16.0	733.0	633.8	264.1	26.8	1.000166
16500.0	546.0	-9.5	-30.6	16.0	721.4	632.6	265.1	26.7	1.000163
17000.0	535.3	-10.5	-31.4	16.0	710.0	631.4	265.3	27.1	1.000161
17500.0	524.9	-11.5	-32.2	16.0	698.7	630.2	265.4	27.6	1.000158
18000.0	514.6	-12.5	-33.1	16.0	687.7	629.0	265.1	28.4	1.000155
18500.0	504.5	-13.5	-33.9	16.0	676.9	627.8	264.7	29.2	1.000153
19000.0	494.5	-14.6	-34.7	16.1	666.2	626.5	264.3	29.9	1.000150
19500.0	484.6	-15.8	-35.5	16.3	655.8	625.1	264.1	30.5	1.000148
20000.0	474.9	-16.9	-36.4	16.5	645.5	623.7	264.5	30.8	1.000145
20500.0	465.4	-18.0	-37.2	16.7	635.4	622.3	264.5	30.8	1.000143
21000.0	456.1	-19.2	-38.0	16.9	625.5	620.9	264.2	30.4	1.000141
21500.0	446.8	-20.0	-38.7	17.0	614.8	619.9	264.2	29.2	1.000138
22000.0	437.8	-20.7	-39.3	17.0	604.0	619.0	264.6	26.9	1.000136
22500.0	428.8	-21.5	-39.9	17.0	593.6	618.1	260.6	25.5	1.000133
23000.0	420.0	-22.8	-41.0	17.0	584.3	616.5	269.9	24.5	1.000131
23500.0	411.4	-24.0	-42.0	17.0	575.2	615.0	272.3	26.2	1.000129

STATION ALTITUDE 4051.00 FEET MSL
15 APR. 82 0745 HRS MST
ASCENSION NO. 21

UPPER AIR DATA
1050030021
JALLEN

GEODETLIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 13CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	402.9	-25.3	17.0	560.2	613.4	274.4	28.1	1.000127
24500.0	394.5	-26.5	17.1	557.2	611.9	276.3	30.2	1.000125
25000.0	386.2	-27.8	17.3	548.3	610.3	278.0	32.3	1.000123
25500.0	378.1	-29.0	17.5	539.5	608.7	279.7	34.3	1.000121
26000.0	370.2	-30.3	17.7	530.9	607.2	280.6	37.3	1.000119
26500.0	362.4	-31.5	17.9	522.4	605.6	280.4	41.8	1.000117
27000.0	354.7	-32.6	18.0	513.7	604.2	280.3	46.6	1.000115
27500.0	347.1	-33.4	18.0	504.3	603.3	280.3	51.5	1.000113
28000.0	339.7	-34.1	18.0**	495.0	602.3	280.3	55.8	1.000111
28500.0	332.3	-35.2	14.8**	486.6	600.9	280.1	59.0	1.000109
29000.0	325.1	-36.4	11.6**	478.3	599.5			1.000107
29500.0	318.0	-37.5	8.4**	470.1	598.0			1.000105
30000.0	311.1	-38.6	5.2**	462.1	596.6			1.000103
30500.0	304.3	-39.8	2.1**	454.3	595.2			1.000101

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
15 APR. 82
ASCENSION NO. 21

MANDATORY LEVELS
1050030021
JALLEN

TABLE 14

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES (TN)	SPEED KNOTS	
850.0	4732.	15.7	-7.2	20.	259.0	3.5	
800.0	6411.	12.8	-10.4	19.	258.7	10.1	
750.0	8174.	8.8	-13.9	18.	259.7	14.6	
700.0	10031.	4.5	-17.7	18.	269.2	17.2	
650.0	11994.	.2	-21.8	17.	260.8	23.3	
600.0	14080.	-4.5	-26.2	16.	266.3	25.8	
550.0	16307.	-9.2	-30.3	16.	265.0	26.6	
500.0	18704.	-14.0	-34.3	16.	264.6	29.5	
450.0	21298.	-19.8	-38.5	17.	264.1	30.0	
400.0	24137.	-25.7	-43.4	17.	275.0	28.8	
350.0	27262.	-33.1	-49.2	18.	280.4	49.5	
300.0	30767.	-40.5					

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
15 APR. 82
ASCENSION NO. 27

SIGNIFICANT LEVEL DATA
1050180027
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 15

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
872.2	4051.4	20.5	-7.9	14.0
850.0	4776.5	17.2	-8.8	16.0
771.2	7459.9	9.2	-13.2	19.0
761.0	7821.6	8.5	-13.8	19.0
700.0	10069.6	3.9	-19.6	16.0
586.0	14721.2	-6.8	-20.3	16.0
568.6	15492.9	-8.1	-19.0	41.0
559.6	15900.0	-8.6	-19.4	41.0
550.6	16312.7	-9.7	-14.3	69.0
542.4	16692.9	-10.9	-10.6	53.0
538.3	16884.6	-11.3	-19.6	50.0
525.6	17487.7	-10.7	-32.2	15.0
500.0	18742.3	-14.0	-33.1	18.0
468.0	20379.8	-18.4	-36.2	19.0
452.4	21212.4	-18.1	-37.7	16.0
428.8	22521.7	-21.0	-40.7	15.0
400.0	24197.5	-25.1	-43.5	16.0
369.2	26099.0	-26.8	-46.6	16.0
355.2	27006.4	-30.5	-48.0	16.0
341.6	27915.2	-32.9	-50.0	16.0
328.0	28851.6	-35.3	-52.0	16.0
300.0	30877.8	-40.0		
250.0	34887.2	-50.3		
235.0	36207.6	-53.6		
229.2	36736.5	-54.0		
226.1	37024.1	-54.6		
218.4	37755.8	-54.0		
207.6	38424.6	-55.5		
200.0	39605.9	-56.7		
150.0	45536.8	-62.5		
121.4	49421.5	-64.4		
111.3	51592.2	-59.9		
100.0	53783.4	-62.8		
92.4	55378.5	-65.9		
82.4	57674.5	-65.7		
79.4	58424.0	-62.5		
70.0	60968.7	-66.1		
50.0	67869.6	-56.2		
30.0	78679.1	-53.0		
20.0	87404.7	-49.2		

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

SIGNIFICANT LEVEL DATA
1050180027
LC-37

TABLE 15 CONT'D

STATION ALTITUDE 4051.37 FEET MSL
15 APR. 82 0800 HRS MST
ASCENSION NO. 27

TEMPERATURE	REL. HUM.
AIR DEWPOINT	PERCENT
DEGREES CENTIGRADE	
17.0	90951.4
-47.0	

UPPER AIR DATA
1050180027
LC-37

STATION ALTITUDE 4051.37 FELT MSL
15 APR. 82 0800 HRS MST
ASCENSION NO. 27

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 16

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (TN))	SPEED KNOTS	INDEX OF REFRACTION
4051.4	872.2	20.5	14.0	1033.2	668.1	230.0	8.0	1.000245
4500.0	858.4	18.5	15.2	1024.0	665.7	247.2	8.9	1.000243
5000.0	843.1	16.5	16.2	1012.6	663.5	261.4	10.7	1.000239
5500.0	828.0	15.0	16.8	999.6	661.8	271.2	13.0	1.000236
6000.0	813.1	13.6	17.4	986.8	660.1	275.1	15.1	1.000232
6500.0	798.5	12.1	17.9	974.2	658.3	270.7	16.3	1.000229
7000.0	784.2	10.6	18.5	961.7	656.6	267.0	18.2	1.000225
7500.0	770.1	9.1	19.0	949.3	654.9	264.4	21.5	1.000222
8000.0	756.0	8.1	18.8	935.3	653.7	262.8	24.2	1.000218
8500.0	742.1	7.1	18.1	921.5	652.5	262.2	25.8	1.000214
9000.0	728.4	6.1	17.4	907.9	651.3	266.5	27.1	1.000210
9500.0	715.0	5.1	16.8	894.6	650.1	272.4	28.4	1.000206
10000.0	701.8	4.0	16.1	881.4	648.8	276.5	28.9	1.000203
10500.0	688.6	2.9	16.0	868.4	647.5	279.9	29.5	1.000199
11000.0	675.5	1.8	16.0	855.5	646.1	279.9	29.6	1.000196
11500.0	662.8	.6	16.0	842.9	644.8	279.9	29.9	1.000193
12000.0	650.2	-5.5	16.0	830.5	643.4	279.8	30.8	1.000190
12500.0	637.9	-1.7	16.0	818.2	642.0	279.0	31.2	1.000187
13000.0	625.8	-2.8	16.0	806.2	640.7	277.1	31.0	1.000184
13500.0	614.0	-4.0	16.0	794.3	639.3	275.8	30.8	1.000181
14000.0	602.4	-5.1	16.0	782.7	637.9	274.8	30.5	1.000178
14500.0	591.0	-6.3	16.0	771.2	636.5	274.7	30.3	1.000175
15000.0	579.7	-7.3	25.0	759.0	635.4	272.1	30.3	1.000174
15500.0	568.4	-8.1	41.0	746.5	634.5	266.1	30.7	1.000174
16000.0	557.4	-8.9	47.8	734.0	633.6	264.5	31.5	1.000172
16500.0	546.5	-10.3	61.1	723.5	632.0	265.4	32.3	1.000171
17000.0	535.8	-11.2	43.3	712.0	630.8	267.7	33.2	1.000165
17500.0	525.3	-10.7	15.0	697.2	631.2	267.1	33.0	1.000158
18000.0	515.0	-12.0	16.2	686.9	629.6	266.8	32.1	1.000155
18500.0	504.8	-13.4	17.4	676.8	628.0	266.7	30.9	1.000153
19000.0	494.8	-14.7	18.2	666.8	626.4	267.3	30.8	1.000151
19500.0	484.9	-16.0	18.5	656.9	624.8	268.4	30.4	1.000148
20000.0	475.2	-17.4	18.8	647.1	623.1	269.9	30.0	1.000146
20500.0	465.7	-18.4	18.6	636.6	621.9	271.4	29.5	1.000143
21000.0	456.3	-18.2	16.8	623.3	622.1	272.8	29.1	1.000140
21500.0	447.1	-18.7	15.8	612.1	621.4	273.9	30.1	1.000138
22000.0	438.1	-19.8	15.4	602.3	620.1	274.8	31.6	1.000135
22500.0	429.2	-21.0	15.0	592.7	618.7	275.8	34.0	1.000133
23000.0	420.4	-22.2	15.3	583.4	617.2	276.3	36.9	1.000131
23500.0	411.7	-23.4	15.6	574.2	615.7	277.4	39.5	1.000129

STATION ALTITUDE 4051.37 FEET MSL
15 APR. 82
ASCENSION NO. 27

UPPER AIR DATA
105018002/
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 16 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	403.3	-24.6	15.9	565.2	614.2	278.7	42.0	1.000127
24500.0	394.9	-25.7	16.0	555.9	612.9	278.7	46.7	1.000125
25000.0	386.7	-26.7	16.0	546.5	611.7	278.4	52.2	1.000122
25500.0	378.6	-27.6	16.0	537.2	610.5	277.1	57.8	1.000120
26000.0	370.7	-28.6	16.0	528.1	609.2	275.9	63.4	1.000118
26500.0	362.9	-29.6	16.0	519.0	608.1	274.8	64.8	1.000116
27000.0	355.3	-30.5	16.0	510.0	606.9	273.8	65.8	1.000114
27500.0	347.7	-31.8	16.0	501.9	605.2	272.8	65.7	1.000112
28000.0	340.3	-33.1	16.0	493.9	603.6	271.2	65.5	1.000110
28500.0	333.0	-34.4	16.0	485.9	602.0	270.5	66.3	1.000109
29000.0	325.9	-35.6	14.8**	477.9	600.4	270.0	67.6	1.000107
29500.0	318.8	-36.8	10.9**	469.6	598.9	269.8	69.9	1.000105
30000.0	311.8	-38.0	6.9**	461.9	597.5	270.0	73.0	1.000103
30500.0	305.0	-39.1	3.0**	454.1	596.0	270.4	76.5	1.000101
31000.0	298.3	-40.3		446.4	594.5	270.9	78.7	1.000099
31500.0	291.6	-41.6		438.8	592.8	271.3	80.2	1.000098
32000.0	285.1	-42.9		431.3	591.2	271.5	80.0	1.000096
32500.0	278.7	-44.2		424.0	589.5	271.7	79.6	1.000094
33000.0	272.4	-45.5		416.8	587.9	272.0	78.9	1.000093
33500.0	266.3	-46.7		409.7	586.2	272.3	78.9	1.000091
34000.0	260.3	-48.0		402.8	584.5	272.6	79.2	1.000090
34500.0	254.4	-49.3		396.0	582.9	272.9	80.4	1.000088
35000.0	248.7	-50.6		389.2	581.2	273.1	82.0	1.000087
35500.0	242.9	-51.8		382.4	579.6	273.3	83.1	1.000085
36000.0	237.3	-53.1		375.6	577.9	273.5	83.9	1.000084
36500.0	231.8	-53.8		368.1	577.0	273.6	84.4	1.000082
37000.0	226.4	-54.5		360.7	576.0	273.8	84.6	1.000080
37500.0	221.1	-54.2		351.7	576.4	274.0	84.8	1.000078
38000.0	215.9	-54.3		343.7	576.3	274.1	85.2	1.000077
38500.0	210.8	-55.0		336.7	575.3	274.3	85.0	1.000075
39000.0	205.9	-55.8		329.9	574.4	274.5	83.9	1.000073
39500.0	201.0	-56.5		323.3	573.4	274.6	82.6	1.000072
40000.0	196.2	-57.1		316.4	572.6	274.5	80.0	1.000070
40500.0	191.5	-57.6		309.5	572.0	274.3	77.3	1.000069
41000.0	186.9	-58.1		302.7	571.4	273.4	76.0	1.000067
41500.0	182.4	-58.6		296.2	570.7	272.4	74.7	1.000066
42000.0	178.1	-59.0		289.7	570.0	271.5	75.1	1.000065
42500.0	173.8	-59.5		283.4	569.4	270.6	75.5	1.000063
43000.0	169.6	-60.0		277.3	568.7	269.9	73.8	1.000062
43500.0	165.6	-60.5		271.3	568.1	269.1	71.9	1.000060

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
15 APR. 82 0800 HRS MST
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GEODETIC COORDINATES
32.40175 LAT DEG
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TABLE 16 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
44000.0	161.6	-61.0		265.4	567.4	268.3	68.7	1.000059
44500.0	157.7	-61.5		259.6	566.8	267.4	65.6	1.000058
45000.0	154.0	-62.0		254.0	566.1	266.7	64.5	1.000057
45500.0	150.3	-62.5		248.5	565.5	266.0	64.1	1.000055
46000.0	146.6	-62.7		242.7	565.2	265.7	65.9	1.000054
46500.0	143.0	-62.9		237.0	564.9	265.4	67.7	1.000053
47000.0	139.5	-63.1		231.5	564.6	265.2	69.0	1.000052
47500.0	136.1	-63.4		226.1	564.3	265.0	70.0	1.000050
48000.0	132.8	-63.6		220.8	564.0	264.5	69.7	1.000049
48500.0	129.6	-63.8		215.6	563.7	264.0	69.3	1.000048
49000.0	126.4	-64.0		210.6	563.4	263.9	68.8	1.000047
49500.0	123.3	-64.3		205.7	563.1	263.9	68.3	1.000046
50000.0	120.3	-63.9		200.4	563.5	265.0	65.9	1.000045
50500.0	117.4	-62.7		194.4	565.2	266.2	63.5	1.000043
51000.0	114.6	-61.4		188.5	566.9	267.6	58.9	1.000042
51500.0	111.8	-60.1		182.8	568.6	269.2	53.8	1.000041
52000.0	109.1	-60.4		178.7	568.2	271.1	46.8	1.000040
52500.0	106.5	-61.1		174.9	567.3	273.6	38.4	1.000039
53000.0	103.9	-61.8		171.2	566.4	276.9	30.0	1.000038
53500.0	101.4	-62.4		167.6	565.5	280.8	21.2	1.000037
54000.0	98.9	-63.2		164.2	564.5	290.1	12.6	1.000037
54500.0	96.5	-64.2		160.9	563.2	286.4	9.2	1.000036
55000.0	94.1	-65.2		157.7	561.8	276.1	6.5	1.000035
55500.0	91.8	-65.9		154.4	560.9	258.0	7.9	1.000034
56000.0	89.6	-65.8		150.5	560.9	249.6	12.3	1.000034
56500.0	87.4	-65.8		146.8	561.0	247.1	16.7	1.000033
57000.0	85.2	-65.8		143.1	561.0	248.2	20.9	1.000032
57500.0	83.1	-65.7		139.6	561.1	249.2	24.7	1.000031
58000.0	81.1	-64.3		135.3	563.0	253.5	24.9	1.000030
58500.0	79.1	-62.6		130.9	565.3	257.7	25.2	1.000029
59000.0	77.2	-63.3		128.1	564.3	262.8	23.5	1.000029
59500.0	75.3	-64.0		125.4	563.4	268.8	21.6	1.000028
60000.0	73.4	-64.7		122.8	562.4	271.4	18.8	1.000027
60500.0	71.6	-65.4		120.2	561.5	272.0	15.3	1.000027
61000.0	69.9	-66.1		117.6	560.6	271.4	11.5	1.000026
61500.0	68.2	-65.3		114.3	561.6	268.9	7.5	1.000025
62000.0	66.6	-64.6		111.2	562.6	255.7	4.1	1.000025
62500.0	65.0	-63.9		108.2	563.5	249.4	3.5	1.000024
63000.0	63.4	-63.2		105.2	564.5	240.5	2.9	1.000023
63500.0	61.9	-62.5		102.3	565.5	233.1	3.4	1.000023

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32.40175 LAT DEG
106.31232 LON DEG

TABLE 16 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.4	-61.8		99.5	566.4	228.1	1.000022
64500.0	58.9	-61.0		96.8	567.4	219.4	1.000022
65000.0	57.5	-60.3		94.1	568.3	208.0	1.000021
65500.0	56.1	-59.6		91.6	569.3	201.9	1.000020
66000.0	54.8	-58.9		89.1	570.3	203.7	1.000020
66500.0	53.5	-58.2		86.6	571.2	203.5	1.000019
67000.0	52.2	-57.4		84.2	572.2	169.4	1.000019
67500.0	50.9	-56.7		81.9	573.1	131.6	1.000018
68000.0	49.7	-56.2		79.8	573.9	105.6	1.000018
68500.0	48.5	-56.0		77.9	574.1	96.9	1.000017
69000.0	47.4	-55.9		76.0	574.3	93.4	1.000017
69500.0	46.3	-55.7		74.2	574.5	91.0	1.000017
70000.0	45.2	-55.6		72.4	574.7	88.4	1.000016
70500.0	44.2	-55.4		70.6	574.8	85.9	1.000016
71000.0	43.1	-55.3		69.0	575.0	76.9	1.000015
71500.0	42.1	-55.1		67.3	575.2	55.0	1.000015
72000.0	41.1	-55.0		65.7	575.4	251.6	1.000015
72500.0	40.2	-54.8		64.1	575.6	248.7	1.000014
73000.0	39.2	-54.7		62.6	575.8	238.3	1.000014
73500.0	38.3	-54.5		61.1	576.0	230.2	1.000014
74000.0	37.4	-54.4		59.6	576.2	223.6	1.000013
74500.0	36.6	-54.2		58.2	576.4	215.4	1.000013
75000.0	35.7	-54.1		56.8	576.6	205.1	1.000013
75500.0	34.9	-53.9		55.4	576.8	180.6	1.000012
76000.0	34.0	-53.8		54.1	577.0	148.7	1.000012
76500.0	33.3	-53.6		52.8	577.2	127.5	1.000012
77000.0	32.5	-53.5		51.5	577.4	120.6	1.000011
77500.0	31.7	-53.3		50.3	577.6	115.5	1.000011
78000.0	31.0	-53.2		49.1	577.8	114.9	1.000011
78500.0	30.3	-53.1		47.9	578.0	119.3	1.000011
79000.0	29.6	-52.9		46.7	578.2	126.8	1.000010
79500.0	28.9	-52.6		45.6	578.5	139.0	1.000010
80000.0	28.2	-52.4		44.5	578.8	165.2	1.000010
80500.0	27.6	-52.2		43.5	579.1	211.1	1.000010
81000.0	26.9	-52.0		42.4	579.4	231.8	1.000009
81500.0	26.3	-51.8		41.4	579.6	244.8	1.000009
82000.0	25.7	-51.6		40.4	579.9	254.3	1.000009
82500.0	25.1	-51.3		39.5	580.2	258.3	1.000009
83000.0	24.5	-51.1		38.5	580.5	262.0	1.000009
83500.0	24.0	-50.9		37.6	580.8	266.9	1.000008

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TABLE 16 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED KNOTS	
84000.0	23.4	-50.7		36.7	581.1	292.8	4.3	1.000008
84500.0	22.9	-50.5		35.8	581.4	301.3	6.6	1.000008
85000.0	22.4	-50.2		35.0	581.6	305.5	8.4	1.000008
85500.0	21.9	-50.0		34.1	581.9	312.8	5.9	1.000008
86000.0	21.3	-49.8		33.3	582.2	329.9	3.6	1.000007
86500.0	20.9	-49.6		32.5	582.5	26.3	2.3	1.000007
87000.0	20.4	-49.4		31.7	582.8	65.9	5.2	1.000007
87500.0	19.9	-49.1		31.0	583.1	98.1	9.5	1.000007
88000.0	19.5	-48.8		30.2	583.5	104.0	12.5	1.000007
88500.0	19.0	-48.5		29.5	583.9	112.4	12.3	1.000007
89000.0	18.6	-48.2		28.8	584.3	120.8	12.3	1.000006
89500.0	18.2	-47.9		28.1	584.7			1.000006
90000.0	17.8	-47.6		27.4	585.1			1.000006
90500.0	17.4	-47.3		26.8	585.5			1.000006

STATION ALTITUDE 4051.37 FEET MSL
15 APR. 82 0800 HRS MST
ASCENSION NO. 27

MANDATORY LEVELS
1050180027
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TABLE 17

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4773.	17.2	-8.8	16.	255.7	9.8
800.0	6452.	12.2	-11.5	18.	271.1	16.2
750.0	8209.	7.7	-14.8	18.	262.6	24.9
700.0	10060.	3.9	-19.6	16.	277.0	29.0
650.0	12018.	-0.6	-23.2	16.	279.8	30.8
600.0	14097.	-5.4	-27.2	16.	274.8	30.4
550.0	16320.	-9.8	-31.1	68.	264.4	32.0
500.0	18716.	-14.0	-35.1	18.	267.0	30.8
450.0	21311.	-18.4	-38.0	16.	273.6	29.6
400.0	24158.	-25.1	-43.5	16.	279.0	43.2
350.0	27301.	-31.4	-48.8	16.	273.0	65.7
300.0	30817.	-40.0			270.8	78.1
250.0	34812.	-50.3			273.1	81.6
200.0	39511.	-56.7			274.6	82.2
175.0	42271.	-59.4			270.9	75.4
150.0	45415.	-62.5			266.0	64.1
125.0	49091.	-64.1			263.9	68.6
100.0	53618.	-62.8			284.4	16.7
80.0	58080.	-63.1			255.6	25.0
70.0	60761.	-66.1			271.7	12.1
60.0	63862.	-61.6			227.6	4.1
50.0	67616.	-56.2			111.4	5.4
40.0	72283.	-54.8			248.0	3.6
30.0	78344.	-53.0			121.0	3.8
25.0	82216.	-51.3			258.6	2.1
20.0	86996.	-49.2			96.0	8.3

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
15 APR. 82 090A HRS MST
ASCENSION NO. 154

SIGNIFICANT LEVEL DATA
1050020154
WHITE SANDS
TABLE 18

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL. HUM. PERCENT
MILLIBARS	MSL FEET	DEGREES CENTIGRADE		
872.2	3989.0	24.5	-5.7	13.0
857.2	4483.5	20.9	-6.7	15.0
850.0	4721.8	19.3	-7.1	16.0
711.6	9613.1	5.8	-16.0	19.0
700.0	10054.2	5.1	-16.6	19.0
667.8	11308.4	1.6	-19.5	19.0
625.2	13046.3	-5	-20.6	20.0
591.8	14480.0	-3.7	-22.3	22.0
575.2	15216.8	-5.2	-14.0	50.0
551.2	16312.2	-7.8	-22.7	29.0
535.2	17064.6	-8.3	-28.3	18.0
500.0	18787.0	-12.5	-28.8	24.0
451.2	21331.4	-19.6	-34.5	25.0
436.8	22125.8	-18.4	-35.2	21.0
400.0	24262.1	-24.2	-39.8	22.0
387.8	25002.7	-26.0	-40.9	23.0
380.8	25436.6	-26.1	-41.4	22.0
353.8	27173.6	-30.2	-45.3	21.0
340.8	28048.1	-31.5	-46.0	22.0
315.6	29821.4	-36.0	-49.6	23.0
300.0	30973.6	-38.9	-52.1	
250.0	35008.6	-48.5		
225.8	37194.2	-52.8		
210.8	38650.8	-54.3		
200.0	39760.9	-54.6		
192.2	40600.0	-54.6		
174.2	42659.8	-57.7		
150.0	45748.2	-60.9		
123.8	49658.6	-63.6		
110.2	52018.0	-63.0		
103.8	53244.9	-58.9		
100.0	54017.7	-58.6		
92.0	55730.2	-62.7		
80.8	58355.6	-65.2		
73.0	60414.1	-61.7		
70.0	61270.8	-62.4		
60.6	64208.9	-62.6		
51.6	67533.2	-56.3		
50.0	68193.7	-56.6		
30.0	79008.6	-52.4		

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

SIGNIFICANT LEVEL DATA
 1050020154
 WHITE SANDS

TABLE 18 CONT'D

STATION ALTITUDE 3989.00 FEET MSL
 15 APR. 82 0908 HRS MST
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PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
22.2 85520.0	-47.6	
20.0 87800.4	-47.9	
15.0 94083.9	-48.0	
11.1 100752.3	-41.9	

STATION ALTITUDE 3989.00 FEET MSL
15 APR. 82 0908 HRS MST
ASCENSION NO. 154

UPPER AIR DATA
1050020154
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 19

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/S	WIND DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	872.2	24.5	-5.7	13.0	1019.0	672.7	270.0	28.0	1.000244
4000.0	871.9	24.4	-5.7	13.0	1018.9	672.6	270.0	27.9	1.000244
4500.0	856.7	20.8	-6.7	15.1	1013.7	668.5	270.1	25.0	1.000242
5000.0	841.5	18.5	-7.6	16.2	1003.4	665.9	270.1	22.1	1.000239
5500.0	826.3	17.2	-8.5	16.5	990.1	664.3	270.2	19.2	1.000235
6000.0	811.4	15.8	-9.4	16.8	977.0	662.7	270.3	16.3	1.000231
6500.0	796.8	14.4	-10.2	17.1	964.1	661.0	269.2	13.7	1.000228
7000.0	782.5	13.0	-11.1	17.4	951.4	659.4	266.6	11.2	1.000224
7500.0	768.4	11.6	-12.1	17.7	938.8	657.8	263.4	10.5	1.000220
8000.0	754.6	10.3	-13.0	18.0	926.5	656.2	260.7	11.9	1.000217
8500.0	741.0	8.9	-13.9	18.3	914.3	654.6	260.5	14.4	1.000214
9000.0	727.6	7.5	-14.8	18.6	902.3	653.0	262.1	18.5	1.000210
9500.0	714.5	6.1	-15.8	18.9	890.5	651.3	263.4	22.4	1.000207
10000.0	701.4	5.2	-16.5	19.0	877.1	650.2	266.9	24.2	1.000204
10500.0	688.4	3.9	-17.6	19.0	865.0	648.7	270.0	26.1	1.000200
11000.0	675.6	2.5	-18.8	19.0	853.3	647.0	275.0	29.5	1.000197
11500.0	663.0	1.4	-19.6	19.1	840.7	645.7	275.7	33.9	1.000194
12000.0	650.5	.8	-19.9	19.4	826.7	645.0	275.1	35.9	1.000190
12500.0	638.3	.2	-20.3	19.7	813.0	644.3	275.0	33.7	1.000187
13000.0	626.3	-.4	-20.6	20.0	799.5	643.6	277.2	31.1	1.000184
13500.0	614.4	-1.5	-21.1	20.6	787.4	642.3	275.4	31.1	1.000181
14000.0	602.8	-2.6	-21.7	21.3	775.7	641.0	270.1	31.2	1.000178
14500.0	591.3	-3.7	-21.9	22.8	764.1	639.7	266.5	31.6	1.000176
15000.0	580.0	-4.8	-15.7	41.8	752.0	638.6	265.5	32.0	1.000177
15500.0	568.9	-5.9	-16.0	44.6	740.6	637.3	264.9	32.1	1.000174
16000.0	557.9	-7.1	-19.9	35.0	729.8	635.8	265.5	31.5	1.000169
16500.0	547.2	-7.9	-23.9	26.3	718.2	634.6	266.2	30.9	1.000165
17000.0	536.6	-8.3	-27.7	18.9	705.3	634.2	256.7	30.5	1.000160
17500.0	526.1	-9.4	-28.4	19.5	694.5	632.9	267.1	30.3	1.000158
18000.0	515.8	-10.6	-28.5	21.3	684.0	631.4	267.0	30.4	1.000156
18500.0	505.7	-11.8	-28.7	23.0	673.8	629.9	268.6	31.1	1.000153
19000.0	495.7	-13.1	-29.3	24.1	663.8	628.4	269.9	31.7	1.000151
19500.0	485.8	-14.5	-30.4	24.3	654.1	626.7	270.9	32.4	1.000148
20000.0	476.1	-15.9	-31.5	24.5	644.5	625.0	271.0	33.4	1.000146
20500.0	466.6	-17.3	-32.7	24.7	635.1	623.3	271.0	35.4	1.000144
21000.0	457.3	-18.7	-33.8	24.9	625.8	621.6	269.5	36.0	1.000141
21500.0	448.1	-19.3	-34.7	24.2	614.9	620.7	268.0	36.1	1.000139
22000.0	439.0	-19.6	-35.1	21.6	600.7	621.7	264.9	35.8	1.000136
22500.0	430.1	-19.4	-36.0	21.2	590.4	620.0	263.5	36.5	1.000133
23000.0	421.3	-20.8	-37.1	21.4	581.5	619.0	267.0	37.9	1.000131

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TABLE 19 CONT'D

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND M/S	WIND DATA DIRECTION (IN) SPEED KNOTS	INDEX OF REFRACTION
23500.0	412.8	-22.1	21.6	572.7	617.3	268.3	1.000129
24000.0	404.3	-23.5	21.9	564.1	615.6	269.3	1.000127
24500.0	390.0	-24.8	22.3	555.4	614.0	270.2	1.000125
25000.0	387.8	-26.0	23.0	546.6	612.5	271.1	1.000123
25500.0	379.8	-26.2	22.0	535.8	612.2	271.9	1.000120
26000.0	371.8	-27.4	21.7	527.1	610.7	272.9	1.000118
26500.0	364.0	-28.6	21.4	518.5	609.3	273.7	1.000116
27000.0	356.4	-29.8	21.1	510.1	607.8	274.2	1.000114
27500.0	348.9	-30.7	21.4	501.2	606.7	274.3	1.000112
28000.0	341.5	-31.4	21.9	492.1	605.7	273.8	1.000110
28500.0	334.2	-32.6	22.3	484.0	604.2	273.2	1.000108
29000.0	327.0	-33.9	22.5	476.2	602.6	272.4	1.000107
29500.0	320.0	-35.2	22.8	468.5	601.0	271.8	1.000105
30000.0	313.1	-36.4	23.0	460.8	599.4	271.2	1.000103
30500.0	306.3	-37.7	23.0	453.2	597.8	270.9	1.000101
31000.0	299.6	-39.0	22.8**	445.7	596.2	270.7	1.000100
31500.0	292.9	-40.2	20.0**	438.0	594.7	270.9	1.000098
32000.0	286.4	-41.3	17.1**	430.4	593.2	271.4	1.000096
32500.0	280.0	-42.5	14.3**	423.0	591.6	272.4	1.000094
33000.0	273.8	-43.7	11.4**	415.7	590.1	273.2	1.000093
33500.0	267.6	-44.9	8.6**	408.5	588.6	274.0	1.000091
34000.0	261.7	-46.1	5.7**	401.5	587.0	274.1	1.000089
34500.0	255.8	-47.3	2.9**	394.6	585.5	274.1	1.000088
35000.0	250.1	-48.5	.0**	387.1	583.9	273.9	1.000086
35500.0	244.3	-49.5		380.5	582.7	273.8	1.000085
36000.0	238.7	-50.5		373.4	581.4	273.8	1.000083
36500.0	233.2	-51.4		366.4	580.1	273.8	1.000082
37000.0	227.9	-52.4		359.6	578.8	273.9	1.000080
37500.0	222.6	-53.1		352.4	577.9	273.9	1.000078
38000.0	217.4	-53.6		345.0	577.2	274.0	1.000077
38500.0	212.3	-54.1		337.7	576.5	274.0	1.000075
39000.0	207.3	-54.4		330.2	575.2	273.9	1.000074
39500.0	202.5	-54.5		322.7	576.0	273.7	1.000072
40000.0	197.7	-54.6		315.2	575.9	273.1	1.000070
40500.0	193.1	-54.6		307.8	575.9	272.7	1.000069
41000.0	188.6	-55.2		301.4	575.1	272.2	1.000067
41500.0	184.1	-56.0		295.3	574.1	271.7	1.000066
42000.0	179.8	-56.7		289.3	573.1	271.3	1.000064
42500.0	175.5	-57.5		283.5	572.2	271.1	1.000063
43000.0	171.4	-58.1		277.5	571.4	270.0	1.000062

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
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TABLE 19 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
43500.0	167.3	-58.6		271.5	570.7	270.5	88.4	1.000060
44000.0	163.3	-59.1		265.7	570.0	270.2	88.8	1.000059
44500.0	159.3	-59.6		260.0	569.3	269.6	88.4	1.000058
45000.0	155.5	-60.1		254.3	568.6	269.5	85.6	1.000057
45500.0	151.8	-60.6		248.9	567.9	269.2	80.4	1.000055
46000.0	148.2	-61.1		243.4	567.3	268.6	75.7	1.000054
46500.0	144.6	-61.4		237.9	566.9	268.4	71.6	1.000053
47000.0	141.1	-61.8		232.5	566.4	268.0	70.0	1.000052
47500.0	137.6	-62.1		227.2	566.0	267.7	71.1	1.000051
48000.0	134.3	-62.5		222.1	565.5	267.3	71.7	1.000049
48500.0	131.0	-62.8		217.0	565.0	266.5	70.0	1.000048
49000.0	127.9	-63.1		212.1	564.6	265.7	68.4	1.000047
49500.0	124.8	-63.5		207.3	564.1	264.8	62.8	1.000046
50000.0	121.7	-63.5		202.3	564.1	263.6	56.5	1.000045
50500.0	118.8	-63.4		197.2	564.2	263.1	48.5	1.000044
51000.0	115.9	-63.3		192.3	564.4	263.1	39.3	1.000043
51500.0	113.1	-63.1		187.5	564.6	264.4	31.8	1.000042
52000.0	110.3	-63.0		182.8	564.7	267.8	25.9	1.000041
52500.0	107.6	-61.4		177.1	565.9	271.8	21.5	1.000039
53000.0	105.0	-59.7		171.5	569.1	274.8	19.1	1.000038
53500.0	102.5	-58.8		166.6	570.4	278.7	16.8	1.000037
54000.0	100.1	-58.6		162.5	570.6	279.9	13.1	1.000036
54500.0	97.7	-59.8		159.5	569.1	281.8	9.3	1.000036
55000.0	95.3	-61.0		156.5	567.5	279.4	7.4	1.000035
55500.0	93.0	-62.1		153.6	565.9	269.4	9.2	1.000034
56000.0	90.8	-63.0		150.5	564.8	262.8	11.2	1.000034
56500.0	88.6	-63.4		147.1	564.2	262.4	20.6	1.000033
57000.0	86.4	-63.9		143.6	563.5	262.6	31.4	1.000032
57500.0	84.3	-64.4		140.7	562.9	263.4	38.7	1.000031
58000.0	82.2	-64.9		137.5	562.2	264.7	42.3	1.000031
58500.0	80.2	-65.0		134.2	562.1	265.6	44.2	1.000030
59000.0	78.3	-64.1		130.4	563.3	265.9	35.2	1.000029
59500.0	76.4	-63.3		126.7	564.4	266.5	26.1	1.000028
60000.0	74.5	-62.4		123.2	565.6	264.4	16.1	1.000027
60500.0	72.7	-61.8		119.8	566.4	253.3	6.0	1.000027
61000.0	70.9	-62.2		117.1	565.9	170.7	1.9	1.000026
61500.0	69.2	-62.4		114.4	565.5	131.9	3.1	1.000025
62000.0	67.5	-62.4		111.7	565.5	129.7	3.5	1.000025
62500.0	65.9	-62.5		109.0	565.4	238.2	4.2	1.000024
63000.0	64.3	-62.5		106.4	565.4	257.5	10.1	1.000024

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32.40043 LAT DEG
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TABLE 19 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
63500.0	62.7	-62.6	103.8	565.4	262.0	262.0	16.6	1.000023
64000.0	61.2	-62.6	101.3	565.3	264.8	264.8	23.1	1.000023
64500.0	59.8	-62.0	98.6	566.0	264.4	264.4	22.3	1.000022
65000.0	58.3	-61.1	95.8	567.3	262.0	262.0	17.8	1.000021
65500.0	56.9	-60.2	93.1	568.6	257.1	257.1	11.1	1.000021
66000.0	55.6	-59.2	90.5	569.8	187.9	187.9	2.8	1.000020
66500.0	54.2	-58.3	87.9	571.1	108.6	108.6	9.5	1.000020
67000.0	52.9	-57.3	85.5	572.3	100.3	100.3	11.1	1.000019
67500.0	51.7	-56.4	83.1	573.6	104.4	104.4	12.7	1.000018
68000.0	50.5	-56.5	81.1	573.4	103.9	103.9	11.1	1.000018
68500.0	49.3	-56.5	79.2	573.4	104.2	104.2	7.6	1.000018
69000.0	48.1	-56.3	77.3	573.7	104.4	104.4	4.1	1.000017
69500.0	47.0	-56.1	75.4	574.0	85.2	85.2	2.5	1.000017
70000.0	45.9	-55.9	73.6	574.2	33.8	33.8	1.7	1.000016
70500.0	44.8	-55.7	71.8	574.5	2.2	2.2	2.4	1.000016
71000.0	43.8	-55.5	70.1	574.7	1.3	1.3	3.2	1.000016
71500.0	42.8	-55.3	68.4	575.0	.8	.8	3.9	1.000015
72000.0	41.8	-55.1	66.7	575.2	352.1	352.1	3.7	1.000015
72500.0	40.8	-54.9	65.1	575.5	340.2	340.2	3.5	1.000014
73000.0	39.8	-54.7	63.6	575.8	322.7	322.7	3.0	1.000014
73500.0	38.9	-54.5	62.0	576.0	283.8	283.8	2.5	1.000014
74000.0	38.0	-54.3	60.5	576.3	248.1	248.1	3.2	1.000013
74500.0	37.1	-54.2	59.0	576.5	225.0	225.0	4.0	1.000013
75000.0	36.3	-54.0	57.6	576.8	210.0	210.0	5.1	1.000013
75500.0	35.4	-53.8	56.2	577.0	205.1	205.1	5.9	1.000013
76000.0	34.6	-53.6	54.9	577.3	208.7	208.7	6.0	1.000012
76500.0	33.8	-53.4	53.5	577.5	212.2	212.2	6.0	1.000012
77000.0	33.0	-53.2	52.2	577.8	226.6	226.6	6.1	1.000012
77500.0	32.2	-53.0	51.0	578.1	241.6	241.6	6.5	1.000011
78000.0	31.5	-52.8	49.7	578.3	252.7	252.7	7.5	1.000011
78500.0	30.7	-52.6	48.5	578.6	259.7	259.7	8.8	1.000011
79000.0	30.0	-52.4	47.4	578.8	264.8	264.8	10.2	1.000011
79500.0	29.3	-52.0	46.2	579.3	265.5	265.5	10.9	1.000010
80000.0	28.7	-51.7	45.1	579.8	265.1	265.1	11.3	1.000010
80500.0	28.0	-51.3	44.0	580.3	264.8	264.8	11.7	1.000010
81000.0	27.4	-50.9	42.9	580.7	261.9	261.9	10.1	1.000010
81500.0	26.7	-50.6	41.8	581.2	258.0	258.0	8.5	1.000009
82000.0	26.1	-50.2	40.8	581.7	253.3	253.3	6.9	1.000009
82500.0	25.5	-49.8	39.8	582.2	248.5	248.5	5.1	1.000009
83000.0	24.9	-49.5	38.8	582.7	238.6	238.6	3.3	1.000009

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TABLE 19 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.4	-49.1		37.9	583.1	238.3	2.8	1.000008
84000.0	23.8	-48.7		37.0	583.6	250.1	3.1	1.000008
84500.0	23.3	-48.4		36.1	584.1	259.6	3.4	1.000008
85000.0	22.7	-48.0		35.2	584.6	264.3	3.8	1.000008
85500.0	22.2	-47.6		34.3	585.1	267.7	4.3	1.000008
86000.0	21.7	-47.7		33.6	585.0	271.4	4.2	1.000007
86500.0	21.2	-47.7		32.8	584.9	356.9	1.0	1.000007
87000.0	20.7	-47.8		32.1	584.8	65.4	4.5	1.000007
87500.0	20.3	-47.9		31.4	584.7	69.8	7.2	1.000007
88000.0	19.8	-47.9		30.7	584.7	68.6	6.8	1.000007
88500.0	19.4	-47.9		30.0	584.7	67.3	6.4	1.000007
89000.0	18.9	-47.9		29.3	584.7	62.0	4.6	1.000007
89500.0	18.5	-47.9		28.6	584.7	4.5	1.4	1.000006
90000.0	18.1	-47.9		28.0	584.6	278.3	3.9	1.000006
90500.0	17.7	-47.9		27.3	584.6	267.9	6.5	1.000006
91000.0	17.3	-48.0		26.7	584.6	261.0	6.8	1.000006
91500.0	16.9	-48.0		26.1	584.6	254.7	7.1	1.000006
92000.0	16.5	-48.0		25.5	584.6	248.5	7.9	1.000006
92500.0	16.1	-48.0		25.0	584.6	242.9	10.0	1.000006
93000.0	15.8	-48.0		24.4	584.6	239.3	12.1	1.000005
93500.0	15.4	-48.0		23.8	584.6	237.1	14.1	1.000005
94000.0	15.1	-48.0		23.3	584.6	236.7	15.5	1.000005
94500.0	14.7	-47.6		22.7	585.1	236.4	16.9	1.000005
95000.0	14.4	-47.2		22.2	585.6	236.2	18.1	1.000005
95500.0	14.1	-46.7		21.6	586.2	235.6	16.4	1.000005
96000.0	13.8	-46.2		21.1	586.8	234.8	14.7	1.000005
96500.0	13.4	-45.8		20.6	587.4	233.9	13.1	1.000005
97000.0	13.1	-45.3		20.1	588.0	234.8	13.3	1.000004
97500.0	12.9	-44.9		19.6	588.6	235.7	13.7	1.000004
98000.0	12.6	-44.4		19.1	589.2	236.6	14.0	1.000004
98500.0	12.3	-44.0		18.7	589.8			1.000004
99000.0	12.0	-43.5		18.2	590.4			1.000004
99500.0	11.7	-43.0		17.8	591.0			1.000004
100000.0	11.5	-42.6		17.4	591.5			1.000004
100500.0	11.2	-42.1		16.9	592.1			1.000004

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MANDATORY LEVELS
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TABLE 20

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4718.	19.3	-7.1	16.	270.1	23.7
800.0	6411.	14.7	-10.0	17.	269.6	14.1
750.0	8183.	9.8	-13.3	18.	259.9	12.4
700.0	10044.	5.1	-16.6	19.	267.2	24.4
650.0	12009.	.7	-20.0	19.	275.0	35.8
600.0	14106.	-2.9	-21.8	21.	268.9	31.3
550.0	16347.	-7.8	-23.0	28.	266.0	31.0
500.0	18761.	-12.5	-28.8	24.	269.4	31.4
450.0	21364.	-19.5	-34.6	25.	267.3	36.1
400.0	24222.	-24.2	-39.8	22.	269.8	42.9
350.0	27377.	-30.6	-45.5	21.	274.4	65.4
300.0	30912.	-38.9	-52.1	23.	270.6	78.1
250.0	34933.	-48.5			273.9	94.7
200.0	39666.	-54.6			273.4	75.0
175.0	42457.	-57.6			271.1	88.7
150.0	45625.	-60.9			269.0	78.0
125.0	49322.	-63.5			264.9	63.6
100.0	53851.	-58.6			279.9	13.2
80.0	58363.	-64.9			265.6	43.8
70.0	61061.	-62.4			147.2	2.4
60.0	64181.	-62.2			264.7	23.4
50.0	67938.	-56.6			104.0	10.0
40.0	72601.	-54.8			330.5	3.3
30.0	78671.	-52.4			264.5	10.2
25.0	82564.	-49.5			241.5	3.7
20.0	87389.	-47.9			69.2	7.0
15.0	93614.	-48.0			236.7	15.6

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0908 HRS MST
ASCENSION NO. 106

SIGNIFICANT LEVEL DATA
1050010100
HOLLOMAN
TABLE 21

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
868.4	4126.6	20.0	14.0
859.9	4404.6	20.0	33.0
850.0	4731.5	18.7	33.0
801.9	6358.7	14.1	35.0
700.0	10067.3	5.6	33.0
558.6	15993.8	-6.9	36.0
547.6	16503.9	-7.1	31.0
500.0	18815.7	-11.6	29.0
441.6	21902.2	-19.0	30.0
428.0	22668.4	-19.0	30.0
400.0	24311.9	-23.3	30.0
380.9	25483.9	-26.0	30.0
373.7	25938.5	-26.1	30.0
300.0	31051.5	-37.4	30.0
294.7	31455.9	-38.4	30.0
250.0	35108.4	-47.5	30.0
215.4	38295.4	-55.3	30.0
200.8	39770.6	-55.4	30.0
200.0	39854.7	-54.5	30.0
176.8	42435.5	-58.1	30.0
150.0	45835.1	-59.8	30.0
135.2	47969.0	-61.1	30.0
131.2	48586.1	-59.7	30.0
109.6	52292.1	-60.1	30.0
108.0	52594.3	-60.9	30.0
100.0	54176.9	-59.8	30.0
90.5	56231.9	-60.5	30.0
81.9	58266.7	-64.2	30.0
70.0	61450.3	-62.7	30.0
61.3	64154.4	-62.3	30.0
59.7	64697.9	-59.1	30.0
57.9	65331.2	-59.6	30.0
50.0	68396.4	-54.8	30.0
40.5	72844.0	-55.4	30.0
30.0	79216.2	-52.4	30.0
23.7	84314.4	-47.5	30.0
20.0	88022.5	-48.1	30.0
18.1	90196.9	-48.9	30.0
15.1	94151.8	-47.4	30.0
12.8	97794.0	-44.6	30.0

GEODETIC COORDINATES
32.08865 LAT DEG
106.09965 LON DEG

SIGNIFICANT LEVEL DATA
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HOLLOWMAN

TABLE 21 CONT'D

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0900 HRS MST
ASCENSION NO. 106

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
10.0 103324.8	-40.1	
8.5 107021.2	-37.8	
7.0 111452.1	-38.7	
5.9 115346.8	-38.8	

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0908 HRS MST
ASCENSION NO. 106

UPPER AIR DATA
1050010106
HOLLOMAN
TABLE 22

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4126.6	868.4	20.0	14.0	1030.5	667.5	270.0	1.9	1.000244
4500.0	857.0	19.6	33.0	1016.3	667.7	263.1	3.6	1.000260
5000.0	841.9	17.9	33.3	1004.4	665.7	260.0	5.7	1.000254
5500.0	820.9	16.5	33.9	991.6	664.0	258.6	7.9	1.000250
6000.0	812.3	15.1	34.6	978.9	662.4	257.6	10.1	1.000245
6500.0	797.8	13.8	34.9	966.1	660.8	253.9	11.9	1.000241
7000.0	783.3	12.6	34.7	952.5	659.4	248.7	13.4	1.000236
7500.0	769.1	11.5	34.4	939.1	658.0	245.3	14.3	1.000231
8000.0	755.1	10.3	34.1	925.9	656.6	242.7	15.1	1.000226
8500.0	741.4	9.2	33.8	912.9	655.3	250.0	14.4	1.000222
9000.0	727.9	8.0	33.6	900.1	653.9	257.8	13.6	1.000218
9500.0	714.7	6.9	33.3	887.5	652.5	266.5	11.7	1.000214
10000.0	701.7	5.8	33.0	875.1	651.1	276.1	10.7	1.000210
10500.0	688.6	4.7	33.2	862.0	649.9	278.0	11.4	1.000206
11000.0	675.6	3.6	33.5	849.0	648.6	278.8	13.6	1.000202
11500.0	662.8	2.6	33.7	836.3	647.4	277.9	19.2	1.000199
12000.0	650.3	1.5	34.0	823.7	646.1	276.4	23.8	1.000195
12500.0	638.1	.5	34.2	811.3	644.8	274.8	27.8	1.000192
13000.0	626.0	-.6	34.5	799.2	643.6	273.3	28.5	1.000188
13500.0	614.2	-1.6	34.7	787.2	642.3	272.0	29.3	1.000185
14000.0	602.7	-2.7	35.0	775.4	641.0	271.2	31.1	1.000182
14500.0	591.3	-3.7	35.2	763.8	639.8	270.7	32.2	1.000179
15000.0	580.1	-4.8	35.5	752.4	638.5	270.3	32.8	1.000176
15500.0	569.2	-5.9	35.8	741.2	637.2	270.5	32.0	1.000173
16000.0	558.5	-6.9	35.9	730.1	636.0	271.0	30.6	1.000170
16500.0	547.7	-7.1	31.0	716.6	635.7	270.8	30.9	1.000166
17000.0	537.0	-8.1	30.6	705.2	634.5	270.4	32.0	1.000163
17500.0	526.6	-9.0	30.1	694.1	633.3	268.8	32.0	1.000160
18000.0	516.3	-10.0	29.7	683.1	632.2	266.9	32.0	1.000157
18500.0	506.2	-11.0	29.3	672.3	631.0	263.7	32.7	1.000154
19000.0	496.3	-12.0	29.1	661.8	629.7	260.7	33.5	1.000151
19500.0	486.4	-13.2	29.2	651.6	628.2	257.6	33.8	1.000149
20000.0	476.7	-14.4	29.4	641.6	626.8	255.4	33.9	1.000146
20500.0	467.2	-15.6	29.5	631.8	625.3	250.0	33.2	1.000144
21000.0	457.9	-16.8	29.7	622.1	623.8	257.7	32.8	1.000141
21500.0	448.8	-18.0	29.9	612.6	622.4	261.3	33.1	1.000139
22000.0	439.8	-19.0	30.0	602.7	621.2	264.4	33.3	1.000137
22500.0	431.0	-19.0	30.0	590.5	621.2	266.2	33.3	1.000134
23000.0	422.2	-19.9	30.0	580.5	620.1	268.3	35.1	1.000132
23500.0	413.6	-21.2	30.0	571.6	618.5	270.4	39.4	1.000129

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 62 0908 HRS MST
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UPPER AIR DATA
1050010106
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 22 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (IN))	SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.2	-22.5	-35.2	30.0	562.9	610.9	271.8	45.0	1.000127
24500.0	390.9	-23.7	-36.3	30.0	554.2	615.3	272.7	51.3	1.000125
25000.0	386.7	-24.9	-37.4	30.0	545.3	613.9	274.2	53.1	1.000123
25500.0	380.6	-26.0	-38.4	30.0	536.4	612.5	275.6	53.8	1.000121
26000.0	372.7	-26.2	-38.6	30.0	525.7	612.2	277.2	53.2	1.000118
26500.0	364.8	-27.3	-39.5	30.0	516.9	610.9	277.9	53.6	1.000116
27000.0	357.0	-28.4	-40.5	30.0	508.2	609.5	277.3	55.9	1.000114
27500.0	349.5	-29.6	-41.5	30.0	499.7	608.1	276.5	58.3	1.000112
28000.0	342.0	-30.7	-42.5	30.0	491.3	606.7	275.5	60.7	1.000110
28500.0	334.8	-31.8	-43.5	30.0	483.0	605.3	274.7	62.7	1.000108
29000.0	327.6	-32.9	-44.4	30.0	475.0	603.9	274.0	64.3	1.000107
29500.0	320.7	-34.0	-45.4	30.0	467.0	602.5	273.5	65.5	1.000105
30000.0	313.9	-35.1	-46.4	30.0	459.2	601.1	273.0	66.5	1.000103
30500.0	307.2	-36.2	-47.4	30.0	451.6	599.7	273.0	68.4	1.000101
31000.0	300.7	-37.3	-48.4	30.0	444.0	598.3	273.1	70.5	1.000099
31500.0	294.1	-38.5	-49.6	29.6**	436.6	596.8	273.4	73.2	1.000098
32000.0	287.6	-39.8	-52.0	25.5**	429.2	595.2	273.7	76.1	1.000096
32500.0	281.2	-41.0	-54.5	21.4**	421.9	593.6	273.8	78.1	1.000094
33000.0	274.9	-42.2	-57.3	17.3**	414.7	592.0	273.8	79.8	1.000093
33500.0	268.8	-43.5	-60.4	13.2**	407.7	590.4	273.9	80.7	1.000091
34000.0	262.8	-44.7	-64.2	9.1**	400.8	588.8	274.0	80.8	1.000089
34500.0	256.9	-46.0	-69.5	5.0**	394.0	587.2	274.2	80.6	1.000088
35000.0	251.2	-47.2	-81.4	9**	387.4	585.6	274.5	79.3	1.000086
35500.0	245.5	-48.5			380.6	584.0	274.9	78.1	1.000085
36000.0	239.8	-49.7			373.8	582.4	274.8	76.9	1.000083
36500.0	234.3	-50.9			367.2	580.8	274.7	75.6	1.000082
37000.0	228.8	-52.1			360.7	579.2	274.5	75.3	1.000080
37500.0	223.6	-53.4			354.3	577.6	274.2	75.4	1.000079
38000.0	218.4	-54.6			348.1	576.0	274.1	75.6	1.000078
38500.0	213.3	-55.3			341.1	575.0	274.3	75.9	1.000076
39000.0	208.3	-55.3			333.2	574.9	274.3	76.3	1.000074
39500.0	203.4	-55.4			325.4	574.9	273.9	77.1	1.000072
40000.0	198.6	-54.7			316.7	573.8	273.6	77.9	1.000071
40500.0	193.9	-55.4			310.3	574.9	272.9	80.7	1.000069
41000.0	189.4	-56.1			303.9	574.0	272.2	83.8	1.000068
41500.0	184.9	-56.8			297.7	573.0	271.5	86.6	1.000066
42000.0	180.5	-57.5			291.6	572.1	270.8	89.3	1.000065
42500.0	176.2	-58.1			285.6	571.3	270.0	90.4	1.000064
43000.0	172.0	-58.4			279.1	570.9	269.0	87.9	1.000062
43500.0	167.9	-58.6			272.7	570.6	268.0	85.1	1.000061

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FEET MSL
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UPPER AIR DATA
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HOLLOMAN

GEODETIC COORDINATES
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106.09965 LON DEG

TABLE 22 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	163.9	-58.9		266.5	570.3	266.9	80.5	1.000059
44500.0	160.0	-59.1		260.4	569.9	265.7	75.8	1.000058
45000.0	156.2	-59.4		254.5	569.6	265.3	74.6	1.000057
45500.0	152.5	-59.6		248.7	569.3	264.9	73.4	1.000055
46000.0	148.8	-59.9		243.1	568.9	265.0	75.4	1.000054
46500.0	145.2	-60.2		237.6	568.5	265.2	77.9	1.000053
47000.0	141.7	-60.5		232.2	568.1	265.2	77.3	1.000052
47500.0	138.3	-60.8		226.9	567.7	265.3	75.9	1.000051
48000.0	135.0	-61.0		221.7	567.4	265.2	71.7	1.000049
48500.0	131.8	-59.9		215.2	566.9	264.9	65.0	1.000048
49000.0	128.6	-59.7		209.9	569.1	264.7	58.8	1.000047
49500.0	125.5	-59.8		204.9	569.0	265.1	54.5	1.000046
50000.0	122.5	-59.9		200.1	569.0	265.6	50.2	1.000045
50500.0	119.6	-59.9		195.3	568.9	267.5	47.8	1.000043
51000.0	116.7	-60.0		190.7	568.8	269.8	45.8	1.000042
51500.0	113.9	-60.0		186.2	568.8	272.1	42.3	1.000041
52000.0	111.2	-60.1		181.7	568.7	274.7	37.1	1.000040
52500.0	108.5	-60.7		177.9	567.9	278.1	31.9	1.000040
53000.0	105.9	-60.6		173.6	567.9	279.8	25.6	1.000039
53500.0	103.3	-60.3		169.1	568.4	281.9	19.2	1.000038
54000.0	100.9	-59.9		164.8	568.9	279.7	16.2	1.000037
54500.0	98.4	-59.9		160.8	568.9	274.2	14.7	1.000036
55000.0	96.1	-60.1		157.1	568.7	268.8	14.9	1.000035
55500.0	93.8	-60.3		153.4	568.4	265.1	17.1	1.000034
56000.0	91.5	-60.4		149.9	568.2	262.8	19.1	1.000033
56500.0	89.3	-61.0		146.7	567.5	262.4	20.7	1.000033
57000.0	87.2	-61.9		143.7	566.2	262.0	22.3	1.000032
57500.0	85.0	-62.8		140.8	565.0	261.6	23.0	1.000031
58000.0	83.0	-63.7		138.0	563.8	261.3	23.4	1.000031
58500.0	81.0	-64.1		134.9	563.3	260.9	23.6	1.000030
59000.0	79.0	-63.9		131.5	563.6	260.5	23.4	1.000029
59500.0	77.1	-63.6		128.1	563.9	260.2	23.1	1.000029
60000.0	75.2	-63.4		124.9	564.2	259.9	23.1	1.000028
60500.0	73.4	-63.1		121.7	564.6	259.6	23.2	1.000027
61000.0	71.6	-62.9		118.6	564.9	259.3	23.0	1.000026
61500.0	69.8	-62.7		115.6	565.2	258.0	20.8	1.000026
62000.0	68.1	-62.6		112.7	565.3	256.4	18.6	1.000025
62500.0	66.5	-62.5		110.0	565.4	253.6	15.5	1.000024
63000.0	64.9	-62.5		107.3	565.5	248.5	12.0	1.000024
63500.0	63.3	-62.4		104.6	565.6	240.7	9.0	1.000023

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32.88865 LAT DEG
106.09965 LON DEG

TABLE 22 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS	
64000.0	61.8	-62.3			102.1	565.7	235.6	7.8	1.000023
64500.0	60.3	-60.3			98.6	568.4	228.7	6.7	1.000022
65000.0	58.8	-59.3			95.9	569.7	220.2	5.8	1.000021
65500.0	57.4	-59.3			93.6	569.7	209.7	5.1	1.000021
66000.0	56.1	-58.6			91.0	570.7	196.7	4.6	1.000020
66500.0	54.8	-57.8			88.6	571.7	179.2	4.2	1.000020
67000.0	53.5	-57.0			86.1	572.8	159.4	4.2	1.000019
67500.0	52.2	-56.2			83.8	573.8	141.3	4.5	1.000019
68000.0	51.0	-55.4			81.5	574.8	125.4	4.9	1.000018
68500.0	49.8	-54.8			79.4	575.6	112.7	5.7	1.000018
69000.0	48.6	-54.9			77.6	575.6	103.5	6.2	1.000017
69500.0	47.5	-54.9			75.8	575.5	95.6	6.5	1.000017
70000.0	46.3	-55.0			74.0	575.4	88.8	7.1	1.000016
70500.0	45.3	-55.1			72.3	575.3	87.4	9.7	1.000016
71000.0	44.2	-55.2			70.6	575.2	86.6	12.4	1.000016
71500.0	43.2	-55.2			69.0	575.1	87.9	16.4	1.000015
72000.0	42.2	-55.3			67.4	575.0	89.9	21.8	1.000015
72500.0	41.2	-55.4			65.8	574.9	91.1	27.1	1.000015
73000.0	40.2	-55.3			64.3	575.0	93.4	23.8	1.000014
73500.0	39.3	-55.1			62.7	575.3	96.0	20.0	1.000014
74000.0	38.4	-54.9			61.2	575.6	101.3	15.8	1.000014
74500.0	37.5	-54.6			59.7	575.9	110.2	10.2	1.000013
75000.0	36.6	-54.4			58.3	576.2	137.0	5.4	1.000013
75500.0	35.7	-54.1			56.8	576.5	205.0	4.8	1.000013
76000.0	34.9	-53.9			55.5	576.8	216.5	5.5	1.000012
76500.0	34.1	-53.7			54.1	577.1	225.1	6.5	1.000012
77000.0	33.3	-53.4			52.8	577.5	231.4	7.5	1.000012
77500.0	32.5	-53.2			51.5	577.8	239.4	8.7	1.000011
78000.0	31.8	-53.0			50.3	578.1	245.7	10.0	1.000011
78500.0	31.0	-52.7			49.0	578.4	250.4	11.4	1.000011
79000.0	30.3	-52.5			47.8	578.7	255.9	13.8	1.000011
79500.0	29.6	-52.1			46.7	579.2	260.0	16.7	1.000010
80000.0	28.9	-51.6			45.5	579.8	262.9	19.6	1.000010
80500.0	28.3	-51.2			44.4	580.4	264.5	21.3	1.000010
81000.0	27.6	-50.7			43.3	581.1	265.6	22.0	1.000010
81500.0	27.0	-50.2			42.2	581.7	266.6	22.7	1.000009
82000.0	26.4	-49.7			41.1	582.3	267.6	25.3	1.000009
82500.0	25.8	-49.2			40.1	582.9	268.3	31.5	1.000009
83000.0	25.2	-48.8			39.1	583.6	268.0	37.8	1.000009
83500.0	24.6	-48.3			38.1	584.2	269.0	42.5	1.000008

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82
ASCENSION NO. 106

UPPER AIR DATA
1050010106
HOLLOMAN

GEODETIC COORDINATES
32.68865 LAT DEG
106.09965 LON DEG

TABLE 22 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
84000.0	24.0	-47.8		37.2	584.8	271.3	36.6	1.000008
84500.0	23.5	-47.5		36.3	585.2	274.1	30.8	1.000008
85000.0	23.0	-47.6		35.5	585.1	270.2	25.0	1.000008
85500.0	22.4	-47.7		34.7	585.0	286.6	14.0	1.000008
86000.0	21.9	-47.8		33.9	584.9	341.9	4.5	1.000008
86500.0	21.4	-47.9		33.2	584.8	66.5	11.6	1.000007
87000.0	21.0	-47.9		32.4	584.6	72.6	13.1	1.000007
87500.0	20.5	-48.0		31.7	584.5	72.6	8.7	1.000007
88000.0	20.0	-48.1		31.0	584.4	72.6	4.3	1.000007
88500.0	19.6	-48.3		30.3	584.2	26.9	.4	1.000007
89000.0	19.1	-48.5		29.6	584.0	273.8	3.1	1.000007
89500.0	18.7	-48.6		29.0	583.7	270.3	6.4	1.000006
90000.0	18.3	-48.8		28.4	583.5	268.8	9.2	1.000006
90500.0	17.9	-48.8		27.7	583.5	263.4	7.5	1.000006
91000.0	17.4	-48.6		27.1	583.8	255.1	6.0	1.000006
91500.0	17.1	-48.4		26.4	584.0	241.6	4.7	1.000006
92000.0	16.7	-48.2		25.8	584.3	216.3	4.3	1.000006
92500.0	16.3	-48.0		25.2	584.5	192.2	5.0	1.000006
93000.0	15.9	-47.8		24.6	584.8	175.6	6.3	1.000005
93500.0	15.6	-47.6		24.0	585.0	170.6	8.2	1.000005
94000.0	15.2	-47.5		23.5	585.3	169.9	10.3	1.000005
94500.0	14.9	-47.1		22.9	585.7	169.5	12.4	1.000005
95000.0	14.5	-46.7		22.4	586.2	175.4	13.6	1.000005
95500.0	14.2	-46.4		21.8	586.7	193.7	14.1	1.000005
96000.0	13.9	-46.0		21.3	587.2	209.3	15.9	1.000005
96500.0	13.6	-45.6		20.8	587.7	221.2	18.5	1.000005
97000.0	13.3	-45.2		20.3	588.2	227.0	19.8	1.000005
97500.0	13.0	-44.8		19.8	588.7	230.1	19.5	1.000004
98000.0	12.7	-44.4		19.3	589.2	233.3	19.3	1.000004
98500.0	12.4	-44.0		18.9	589.7	236.5	19.1	1.000004
99000.0	12.1	-43.6		18.4	590.2	239.7	19.1	1.000004
99500.0	11.9	-43.2		18.0	590.7	235.8	16.0	1.000004
100000.0	11.6	-42.8		17.5	591.3	229.8	13.1	1.000004
100500.0	11.3	-42.4		17.1	591.8	220.4	10.3	1.000004
101000.0	11.1	-42.0		16.7	592.3	205.0	8.0	1.000004
101500.0	10.8	-41.6		16.3	592.8	208.9	8.0	1.000004
102000.0	10.6	-41.2		15.9	593.4	236.3	13.1	1.000004
102500.0	10.4	-40.8		15.6	593.9	247.2	19.5	1.000003
103000.0	10.1	-40.4		15.2	594.4	252.7	26.2	1.000003
103500.0	9.9	-40.0		14.8	594.9	255.9	33.1	1.000003

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0908 HRS MST
ASCENSION NO. 106

UPPER AIR DATA
1050010106
HOLLOWMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 22 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
104000.0	9.7	-39.7		14.5	595.3	254.2	30.7	1.000003
104500.0	9.5	-39.4		14.2	595.7	250.0	25.2	1.000003
105000.0	9.3	-39.1		13.8	596.1	243.5	20.0	1.000003
105500.0	9.1	-38.7		13.5	596.5	232.7	15.2	1.000003
106000.0	8.9	-38.4		13.2	596.8	216.6	11.8	1.000003
106500.0	8.7	-38.1		12.9	597.2	233.2	16.3	1.000003
107000.0	8.5	-37.8		12.6	597.6	242.1	21.6	1.000003
107500.0	8.3	-37.9		12.3	597.5	247.5	27.2	1.000003
108000.0	8.1	-38.0		12.1	597.4	251.0	32.9	1.000003
108500.0	8.0	-38.1		11.8	597.3	253.8	40.7	1.000003
109000.0	7.8	-38.2		11.6	597.1	256.2	51.9	1.000003
109500.0	7.6	-38.3		11.3	597.0	257.7	63.0	1.000003
110000.0	7.5	-38.4		11.1	596.9	258.8	74.2	1.000002
110500.0	7.3	-38.5		10.8	596.8	259.5	85.5	1.000002
111000.0	7.1	-38.6		10.6	596.6	259.1	82.8	1.000002
111500.0	7.0	-38.7		10.4	596.5	258.0	73.6	1.000002
112000.0	6.8	-38.7		10.2	596.5	256.5	64.5	1.000002
112500.0	6.7	-38.7		9.9	596.5	254.6	55.4	1.000002
113000.0	6.5	-38.7		9.7	596.5	251.9	46.4	1.000002
113500.0	6.4	-38.8		9.5	596.4			1.000002
114000.0	6.3	-38.8		9.3	596.4			1.000002
114500.0	6.1	-38.8		9.1	596.4			1.000002
115060.0	6.0	-38.8		8.9	596.4			1.000002

STATION ALTITUDE 4126.59 FEET MSL
15 APR. 82 0908 HRS MST
ASCENSION NO. 106

MANDATORY LEVELS
1050010100
HOLLOMAN
TABLE 23

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4728.	18.7	2.1	33.	261.3	4.5
800.0	6420.	14.0	-1.3	35.	254.8	11.6
750.0	8192.	9.9	-5.2	34.	245.5	14.8
700.0	10058.	5.6	-9.4	33.	276.3	10.7
650.0	12031.	1.5	-12.6	34.	276.2	24.1
600.0	14129.	-2.9	-16.2	35.	271.0	31.6
550.0	16371.	-7.1	-20.9	32.	270.9	30.7
500.0	18790.	-11.6	-26.0	29.	261.9	33.2
450.0	21408.	-17.9	-31.2	30.	260.8	33.0
400.0	24273.	-23.3	-36.0	30.	272.4	48.8
350.0	27440.	-29.5	-41.4	30.	276.5	58.2
300.0	30991.	-37.4	-48.5	30.	273.2	70.7
250.0	35033.	-47.5			274.6	79.1
200.0	39761.	-54.5			273.7	77.6
175.0	42541.	-58.2			269.8	89.7
150.0	45714.	-59.8			264.9	74.5
125.0	49444.	-59.8			265.1	54.0
100.0	54012.	-59.8			278.1	15.8
80.0	58549.	-64.0			260.7	23.5
70.0	61242.	-62.7			258.2	21.1
60.0	64365.	-59.7			227.6	6.6
50.0	68142.	-54.8			115.8	5.5
40.0	72817.	-55.3			93.8	23.3
30.0	78880.	-52.4			257.5	14.8
25.0	82781.	-48.6			268.9	39.2
20.0	87612.	-48.1			72.6	4.4
15.0	93830.	-47.3			169.7	11.3
10.0	102768.	-40.1			254.0	30.0
7.0	110809.	-38.7			258.2	75.4

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
15 APR. 82 0908 HRS MST
ASCENSION NO. 22

SIGNIFICANT LEVEL DATA
105003002
JALLEN
TABLE 24

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL. HUM. PERCENT
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	
871.6	4051.0	18.9	-11.1	12.0
865.5	4248.5	18.8	-9.2	14.0
850.0	4755.1	17.1	-8.9	16.0
774.6	7324.6	11.0	-13.1	17.0
737.0	8678.0	7.5	-14.6	19.0
700.0	10061.8	4.1	-18.7	17.0
656.2	11776.5	.7	-20.9	18.0
578.7	15049.1	-6.3	-29.3	14.0
542.4	16701.6	-10.3	-31.9	15.0
537.5	16931.4	-10.1	-31.7	15.0
500.0	18750.4	-14.0	-34.9	15.0
414.5	23332.8	-25.1	-43.5	16.0
400.0	24181.4	-26.6	-44.7	16.0
360.7	26607.0	-33.0	-49.6	17.0
350.7	27257.1	-33.6	-50.6	16.0
300.0	30806.2	-41.2		
257.3	34182.3	-49.1		
250.0	34802.6	-50.3		
219.5	37562.9	-56.2		
212.3	38261.5	-55.9		
200.0	39513.6	-55.6		
190.1	40577.3	-56.5		
180.9	41615.8	-56.0		
174.1	42415.2	-58.0		
167.5	43218.1	-57.9		
150.0	45493.3	-61.3		
133.4	47882.6	-63.1		
127.5	48801.8	-62.4		
109.9	51817.6	-63.6		
100.0	53720.8	-65.4		
80.1	58215.2	-61.8		
70.0	6043.5	-65.8		
68.0	61523.6	-66.6		
60.8	63766.5	-65.3		
58.1	64693.4	-59.1		
50.0	67818.1	-57.0		
36.9	74164.4	-57.7		
30.0	78510.9	-55.0		
25.0	82405.9	-50.3		
22.8	84393.5	-50.7		

STATION ALTITUDE 4051.00 FEET MSL
15 APR. 82 0900 HRS MST
ASCENSION NO. 22

UPPER AIR DATA

1050030022

JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 25

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	871.6	18.9	12.0	1038.5	660.1	190.0	1.9	1.000243
4500.0	857.8	18.0	15.0	1025.1	665.1	227.1	2.1	1.000242
5000.0	842.5	16.5	16.1	1011.9	663.5	252.7	3.0	1.000239
5500.0	827.4	15.3	16.3	997.9	662.1	265.1	4.2	1.000235
6000.0	812.6	14.1	16.5	984.1	660.7	271.8	5.6	1.000231
6500.0	798.0	13.0	16.7	970.6	659.3	279.1	6.9	1.000228
7000.0	783.7	11.8	16.9	957.2	658.0	285.0	8.5	1.000224
7500.0	769.6	10.5	17.3	944.0	656.5	289.0	9.5	1.000221
8000.0	755.6	9.3	18.0	931.1	655.0	273.2	8.0	1.000217
8500.0	741.8	8.0	18.7	918.4	653.5	260.4	8.2	1.000214
9000.0	728.2	6.7	18.5	905.6	652.0	263.5	10.6	1.000211
9500.0	714.8	5.5	17.8	892.9	650.6	265.7	13.4	1.000207
10000.0	701.6	4.3	17.1	880.4	649.1	267.3	16.8	1.000203
10500.0	688.5	3.2	17.3	867.2	647.9	269.0	19.4	1.000200
11000.0	675.7	2.2	17.5	854.1	646.7	270.0	21.5	1.000197
11500.0	663.1	1.2	17.8	841.2	645.6	272.1	22.1	1.000193
12000.0	650.6	.2	17.7	828.5	644.3	273.6	22.2	1.000190
12500.0	638.2	-.8	17.1	816.0	643.1	271.5	22.2	1.000187
13000.0	626.1	-1.9	16.5	803.7	641.8	268.5	22.1	1.000184
13500.0	614.2	-3.0	15.9	791.6	640.5	266.7	23.0	1.000180
14000.0	602.5	-4.1	15.3	779.6	639.2	265.4	24.1	1.000177
14500.0	591.0	-5.1	14.7	767.9	637.9	265.0	25.3	1.000174
15000.0	579.8	-6.2	14.1	756.3	636.6	265.3	26.6	1.000171
15500.0	568.6	-7.4	14.3	745.0	635.2	264.9	27.9	1.000169
16000.0	557.5	-8.6	14.6	733.9	633.7	263.1	28.9	1.000166
16500.0	546.7	-9.8	14.9	723.0	632.3	261.5	29.9	1.000163
17000.0	536.0	-10.2	15.0	710.1	631.8	259.4	29.9	1.000160
17500.0	525.5	-11.3	15.0	699.0	630.5	257.3	30.0	1.000158
18000.0	515.1	-12.4	15.0	688.0	629.2	256.5	29.9	1.000155
18500.0	505.0	-13.5	15.0	677.3	627.9	256.9	29.6	1.000153
19000.0	494.9	-14.6	15.1	666.7	626.5	257.4	29.5	1.000150
19500.0	484.9	-15.8	15.2	656.3	625.0	259.1	30.5	1.000148
20000.0	475.1	-17.0	15.3	646.0	623.5	260.7	31.4	1.000145
20500.0	465.5	-18.2	15.4	636.0	622.1	261.0	32.1	1.000143
21000.0	456.0	-19.4	15.5	626.1	620.6	260.7	32.7	1.000141
21500.0	446.8	-20.7	15.6	616.3	619.1	260.5	33.3	1.000138
22000.0	437.7	-21.9	15.7	606.8	617.6	260.0	33.4	1.000136
22500.0	428.9	-23.1	15.8	597.4	616.1	261.2	33.5	1.000134
23000.0	420.2	-24.3	15.9	588.1	614.6	261.5	34.2	1.000132
23500.0	411.6	-25.4	16.0	578.7	613.2	261.0	35.6	1.000130

STATION ALTITUDE 4051.00 FEET MSL
 15 APR. 82 0908 HRS MST
 ASCENSION NO. 22

UPPER AIR DATA
 1050030022
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 25 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (IN))	SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.1	-26.3	16.0	568.7	612.1	261.9	37.2	1.000127
24500.0	394.6	-27.4	16.1	559.4	610.7	263.0	39.7	1.000125
25000.0	386.3	-28.8	16.3	550.6	609.1	265.1	42.3	1.000123
25500.0	378.1	-30.1	16.5	541.9	607.4	267.9	46.2	1.000121
26000.0	370.2	-31.4	16.7	533.4	605.8	270.5	50.3	1.000119
26500.0	362.4	-32.7	17.0	525.0	604.1	272.0	54.3	1.000117
27000.0	354.6	-33.4	16.4	515.2	603.3	273.0	58.2	1.000115
27500.0	347.0	-34.1	14.9**	505.7	602.3	274.0	62.0	1.000113
28000.0	339.4	-35.2	12.7**	496.9	601.0	274.6	64.3	1.000111
28500.0	332.0	-36.3	10.4**	488.3	599.6	275.1	66.5	1.000109
29000.0	324.8	-37.3	8.1**	479.8	598.3	275.4	68.6	1.000107
29500.0	317.7	-38.4	5.9**	471.5	596.9	274.9	70.4	1.000105
30000.0	310.8	-39.5	3.6**	463.4	595.5	274.5	72.2	1.000103
30500.0	304.1	-40.5	1.4**	455.4	594.2	274.2	74.4	1.000101
31000.0	297.4	-41.7		447.5	592.7	273.9	77.1	1.000100
31500.0	290.7	-42.8		439.7	591.2	273.7	79.9	1.000098
32000.0	284.1	-44.0		432.0	589.7	273.0	82.3	1.000096
32500.0	277.8	-45.2		424.4	588.2	274.1	84.4	1.000095
33000.0	271.5	-46.3		417.0	586.7	274.4	86.6	1.000093
33500.0	265.4	-47.5		409.8	585.2	274.5	86.3	1.000091
34000.0	259.4	-48.7		402.6	583.7	274.0	85.8	1.000090
34500.0	253.5	-49.7		395.3	582.3	274.7	84.8	1.000088
35000.0	247.7	-50.7		387.9	581.0	274.8	82.8	1.000086
35500.0	241.9	-51.8		380.7	579.6	274.9	80.9	1.000085
36000.0	236.3	-52.9		373.7	578.2	274.3	81.3	1.000083
36500.0	230.8	-53.9		366.7	576.8	273.7	82.3	1.000082
37000.0	225.4	-55.0		359.9	575.4	272.9	83.3	1.000080
37500.0	220.2	-56.1		353.3	574.0	271.7	84.5	1.000079
38000.0	215.0	-56.0		344.9	574.1	270.6	85.7	1.000077
38500.0	209.9	-55.8		336.5	574.3	270.1	85.0	1.000075
39000.0	205.0	-55.7		328.4	574.4	270.0	83.0	1.000073
39500.0	200.1	-55.6		320.5	574.6	269.8	81.1	1.000071
40000.0	195.4	-56.0		313.5	574.1	269.3	79.2	1.000070
40500.0	190.8	-56.4		306.7	573.5	268.7	77.4	1.000068
41000.0	186.3	-56.3		299.3	573.7	268.1	75.6	1.000067
41500.0	181.9	-56.1		291.9	574.0	267.1	74.0	1.000065
42000.0	177.6	-57.0		286.2	572.8	266.1	72.6	1.000064
42500.0	173.4	-58.0		280.7	571.4	265.0	71.1	1.000063
43000.0	169.3	-57.9		274.0	571.5	264.4	69.5	1.000061
43500.0	165.2	-58.3		267.9	571.0	263.0	67.9	1.000060

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

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UPPER AIR DATA
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TABLE 25 CONT'D

GEODETIC COORDINATES
33.10712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND METERS PER SECOND	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (IN)	SPEED KNOTS	
44000.0	161.3	-59.1		262.4	570.0	263.2	66.4	1.000058
44500.0	157.4	-59.8		257.0	569.0	262.0	67.2	1.000057
45000.0	153.6	-60.6		251.8	568.0	262.0	68.0	1.000056
45500.0	150.0	-61.3		246.0	567.0	261.4	68.9	1.000055
46000.0	146.3	-61.7		241.0	566.5	261.1	70.8	1.000054
46500.0	142.8	-62.1		235.6	566.0	260.9	72.7	1.000052
47000.0	139.3	-62.4		230.3	565.5	260.0	74.6	1.000051
47500.0	135.9	-62.8		225.1	565.0	260.0	74.7	1.000050
48000.0	132.6	-63.0		219.9	564.7	260.8	73.8	1.000049
48500.0	129.4	-62.6		214.1	565.3	261.0	72.8	1.000048
49000.0	126.3	-62.5		208.8	565.5	261.3	71.5	1.000046
49500.0	123.2	-62.7		203.9	565.2	262.3	67.8	1.000045
50000.0	120.2	-62.9		199.1	564.9	263.5	64.2	1.000044
50500.0	117.3	-63.1		194.5	564.7	264.8	60.6	1.000043
51000.0	114.4	-63.3		189.9	564.4	265.8	56.9	1.000042
51500.0	111.6	-63.5		185.5	564.1	266.8	53.3	1.000041
52000.0	108.9	-63.8		181.2	563.7	268.0	49.7	1.000040
52500.0	106.2	-64.2		177.2	563.1	268.7	46.9	1.000039
53000.0	103.6	-64.7		173.2	562.4	269.4	44.2	1.000039
53500.0	101.1	-65.2		169.4	561.8	270.1	41.5	1.000038
54000.0	98.6	-65.2		165.2	561.6	270.6	38.7	1.000037
54500.0	96.2	-64.8		160.9	562.4	271.1	36.0	1.000036
55000.0	93.9	-64.4		156.0	562.9	271.2	32.8	1.000035
55500.0	91.6	-64.0		152.5	563.4	271.0	29.5	1.000034
56000.0	89.4	-63.6		148.5	564.0	270.9	26.3	1.000033
56500.0	87.2	-63.2		144.6	564.5	266.3	19.8	1.000032
57000.0	85.1	-62.8		140.6	565.1	256.7	13.3	1.000031
57500.0	83.0	-62.4		137.1	565.6	232.6	8.0	1.000031
58000.0	81.0	-62.0		133.5	566.1	200.9	6.4	1.000030
58500.0	79.0	-62.2		130.4	565.8	165.5	7.3	1.000029
59000.0	77.1	-63.0		127.7	564.8	148.0	9.5	1.000028
59500.0	75.2	-63.7		125.0	563.8	185.0	7.8	1.000028
60000.0	73.3	-64.4		122.4	562.8	220.0	9.9	1.000027
60500.0	71.6	-65.1		119.8	561.9	238.8	14.0	1.000027
61000.0	69.8	-65.9		117.3	560.9	245.0	16.7	1.000026
61500.0	68.1	-66.6		114.8	559.9	250.5	19.5	1.000026
62000.0	66.4	-66.3		111.8	560.3	253.6	21.9	1.000025
62500.0	64.8	-66.0		108.9	560.7	252.7	17.9	1.000024
63000.0	63.2	-65.7		106.1	561.1	251.0	13.8	1.000024
63500.0	61.6	-65.5		103.3	561.4	249.1	11.1	1.000023

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GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 25 CONT'D

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.1	-63.7			100.0	563.8	249.2	11.2	1.000022
64500.0	58.7	-60.4			96.0	568.2	249.3	11.3	1.000021
65000.0	57.3	-58.9			93.1	570.2	250.4	11.1	1.000021
65500.0	55.9	-58.6			90.7	570.7	252.7	10.5	1.000020
66000.0	54.6	-58.2			88.4	571.1	255.3	9.8	1.000020
66500.0	53.3	-57.9			86.2	571.6	256.1	7.4	1.000019
67000.0	52.0	-57.5			84.0	572.0	254.5	3.6	1.000019
67500.0	50.8	-57.2			81.9	572.5	142.4	.2	1.000018
68000.0	49.6	-57.0			79.9	572.7	86.7	3.0	1.000018
68500.0	48.4	-57.1			78.0	572.7	86.7	5.6	1.000017
69000.0	47.2	-57.1			76.2	572.6	86.7	8.2	1.000017
69500.0	46.1	-57.2			74.4	572.5	83.8	8.7	1.000017
70000.0	45.0	-57.2			72.7	572.4	79.8	8.6	1.000016
70500.0	44.0	-57.3			71.0	572.4	75.9	8.6	1.000016
71000.0	42.9	-57.4			69.3	572.3	72.7	7.0	1.000015
71500.0	41.9	-57.4			67.7	572.2	67.7	5.2	1.000015
72000.0	40.9	-57.5			66.1	572.1	59.8	3.5	1.000015
72500.0	40.0	-57.5			64.6	572.1	79.5	2.8	1.000014
73000.0	39.0	-57.6			63.0	572.0	106.6	2.6	1.000014
73500.0	38.1	-57.6			61.6	571.9	129.5	2.8	1.000014
74000.0	37.2	-57.7			60.1	571.9	144.5	3.0	1.000013
74500.0	36.3	-57.5			58.7	572.1	157.1	3.4	1.000013
75000.0	35.5	-57.2			57.2	572.5	160.4	3.1	1.000013
75500.0	34.6	-56.9			55.8	572.9	158.8	2.5	1.000012
76000.0	33.8	-56.6			54.4	573.3	156.2	1.9	1.000012
76500.0	33.0	-56.2			53.0	573.8	190.6	2.3	1.000012
77000.0	32.2	-55.9			51.7	574.2	210.7	3.4	1.000012
77500.0	31.5	-55.6			50.4	574.6	220.0	4.8	1.000011
78000.0	30.7	-55.3			49.2	575.0	222.7	6.7	1.000011
78500.0	30.0	-55.0			47.9	575.4	224.2	8.5	1.000011
79000.0	29.3	-54.4			46.7	576.2	225.2	10.3	1.000010
79500.0	28.6	-53.8			45.5	577.0	225.5	9.6	1.000010
80000.0	28.0	-53.2			44.3	577.8	225.9	8.8	1.000010
80500.0	27.3	-52.6			43.2	578.6	226.4	8.0	1.000010
81000.0	26.7	-52.0			42.1	579.4	224.3	5.3	1.000009
81500.0	26.1	-51.4			41.0	580.1	217.3	2.5	1.000009
82000.0	25.5	-50.8			39.9	580.9	103.3	.7	1.000009
82500.0	24.9	-50.3			38.9	581.5			1.000009
83000.0	24.3	-50.4			38.0	581.4			1.000008
83500.0	23.8	-50.5			37.2	581.3			1.000008

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TABLE 25 CONT'D

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.2	-50.6		36.3	581.2			1.0000008

STATION ALTITUDE 4051.00 FEET MSL
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MANDATORY LEVELS

1050030022

JALLEN

TABLE 26

GEODETLIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4752.	17.1	-8.9	16.	242.4	2.5
800.0	6434.	13.1	-11.6	17.	277.9	6.8
750.0	8198.	8.7	-14.0	18.	265.5	7.7
700.0	10053.	4.1	-18.7	17.	267.4	17.2
650.0	12015.	.2	-21.5	18.	273.6	22.2
600.0	14101.	-4.3	-26.9	15.	265.1	24.3
550.0	16329.	-9.4	-31.3	15.	262.0	29.6
500.0	18726.	-14.0	-34.9	15.	257.1	29.5
450.0	21318.	-20.2	-39.7	16.	260.6	33.1
400.0	24143.	-26.6	-44.7	16.	262.5	38.0
350.0	27256.	-33.7	-50.8	16.**	273.6	60.4
300.0	30747.	-41.2			274.0	76.0
250.0	34730.	-50.3			274.7	83.7
200.0	39422.	-55.6			269.8	81.1
175.0	42204.	-57.7			265.4	71.7
150.0	45375.	-61.3			261.4	68.8
125.0	49068.	-62.6			261.7	70.2
100.0	53560.	-65.4			270.3	40.4
80.0	58053.	-61.8			184.5	6.5
70.0	60740.	-65.8			244.6	16.2
60.0	63810.	-63.5			249.2	11.2
50.0	67569.	-57.0			86.7	2.0
40.0	72199.	-57.5			77.1	2.9
30.0	78182.	-55.0			224.2	8.5
25.0	82046.	-50.3				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.